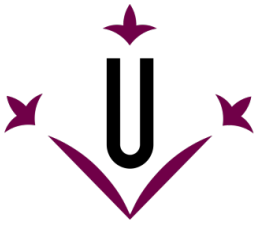

Role of plant volatiles and hetero-specific pheromone components in the wind tunnel response of male *Grapholita molesta* (Lepidoptera: Tortricidae) to modified sex pheromone blends

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Abstract

Female *Grapholita molesta* (Busck) release a pheromone blend composed of two stereoisomeric acetates (*Z*8-12:Ac and *E*8-12:Ac) which must be present in an optimal 100:6 ratio in order to stimulate conspecific male approach. *Z*8-12:OH is described as a third pheromone component but its role as a natural part of the blend is not completely clear. Departures from the optimal pheromone blend ratio, or too high or low pheromone doses of the optimal blend ratio, result in lower male response. In a previous study we show that plant volatiles synergize male response to a suboptimal-low pheromone concentration. In the present study we show that the plant blend does not synergize male response to a suboptimal-high pheromone dose. The plant blend, however, synergized male response to pheromone blends containing unnatural *Z*:*E*-acetate isomer ratios. We revisited the role of alcohols in the pheromone response of *G. molesta* by replacing *Z*8-12:OH with conspecific and heterospecific pheromone alcohols or with plant odors. Codlemone, the alcohol sex pheromone of *Cydia pomonella* L., *E*8,*E*10-12:OH, did supplant the role of *Z*8-12:OH, and so did the plant volatile blend. Dodecenol (12:OH), which has been described as a fourth pheromone component of *G. molesta*, also increased responses, but not as much as *Z*8-12:OH, codlemone or the plant blend. Our results reveal new functions for plant volatiles on moth sex pheromone response under laboratory conditions, and shed new light on the role of alcohols ingredients in the pheromone blend of *G. molesta*.

Keywords: Insect, moth, olfaction, behavior

Introduction

The specificity of insect pheromones and the strong responses that they elicit on insects has made them a cornerstone tool in pest management practices, especially for the hundreds of moth species which sex pheromone has been identified and is used in mating disruption and population monitoring (Witzgall et al., 2010). A drawback of mating disruption is that it reduces the efficiency of the pheromone traps used to monitor its efficacy (Knight et al., 2014). Plants emit up to 10% of their assimilated carbon into the atmosphere as volatile organic compounds of which there are about 30,000 different molecules, including hydrocarbons, alcohols, aldehydes, esters, carboxylic acids and terpenoids (Peñuelas & Llusià, 2004). Phytophagous insects exploit these cues to locate and select their host plants (Bruce et al., 2005), and therefore plant volatiles offer an alternative class of attractants to monitor insect populations (Rodriguez-Saona & Stelinski, 2009; Szendrei & Rodriguez-Saona, 2010). The ubiquitous background of plant odors affects pheromone perception (Reinecke & Hilker, 2014). When the interaction is synergistic, i.e., when the response to the pheromone-plant mixture is larger than to pheromone or plant individually, it could have practical implications in pest control (Landolt & Phillips, 1997; Szendrei & Rodriguez-Saona, 2010). The study of the mechanisms of detection of, and response to, pheromone-plant mixtures has, thus, practical implications (Deisig et al., 2014).

Moths are a suitable model to study the response of insects to pheromone-plant mixtures because many moth species are phytophagous pests that rely on sex pheromone to find mates and are controlled with mating disruption (Witzgall et al., 2010). Under field conditions host-plant volatiles have been shown to synergize male response to sex pheromone in several moth species (Stockel & Boidron, 1981; Dickens et al., 1993; Light et al., 1993; Deng et al., 2004;

Knight et al., 2012; Li et al., 2012), while in some other species there is both synergism and inhibition (Yu et al., 2015), and in others there is just inhibition (Meagher, 2001), or no effect (Kvedaras et al., 2007). Under laboratory wind tunnel conditions pheromone-plant synergism is also the dominant pattern, appearing in several species (Meagher & Mitchell, 1998; Xiao et al., 2002; Deng et al., 2004; Schmidt-Büsser et al., 2009; Barrozo et al., 2010; Varela et al., 2011; Schmera & Guerin, 2012; Von Arx et al., 2012), whereas some species are inhibited (Kramer, 1992; Party et al., 2013). Often the effect of the plant stimulus is tested using the optimal pheromone blend, that is, a blend containing an optimal ratio of compounds and loaded at the optimal attractant dose (Deisig et al., 2014). Comparatively fewer studies have explored whether plant volatiles enhance the response of male moths to suboptimal high-pheromone doses (Schmidt-Büsser et al., 2009), and none, as far as we know, to pheromone blends with suboptimal ratio of components in the blend.

In this study we explore the effect of plant volatiles on different configurations of the pheromone blend of *Grapholita molesta* (Busck). This species is a serious pest of peach and apple worldwide, and synthetic sex pheromone is used to control it (Rothschild & Vickers, 1991; Witzgall et al., 2010; Kong et al., 2014). Females emit a three-component pheromone blend composed of (*Z*)-8-dodecenyl acetate (*Z*8-12:Ac), (*E*)-8 dodecenyl acetate (*E*8-12:Ac), and (*Z*)-8 dodecenyl alcohol (*Z*8-12:OH) in a 100:6:10 ratio, respectively (Roelofs et al., 1969; Cardé et al., 1979). Departures from the optimal ratio of the two isomers of the acetate, or too high or low concentrations of the optimal blend ratio, result in fewer males responding (Baker & Cardé, 1979; Baker et al., 1981; Varela et al., 2011; Knight et al., 2015). In a previous study we have shown that a synthetic volatile blend from peach shoots that attracts mated females under laboratory conditions (Piñero & Dorn, 2007), also enhances the response of males in the wind tunnel to a suboptimal low-concentration of an optimal-

configuration pheromone blend (Varela et al., 2011). It remains to be tested if the plant volatiles also enhance male response to a suboptimal high-concentration pheromone or to suboptimal unnatural-blend configurations.

Whereas a natural ratio of the two acetates is essential in pheromone attraction (Baker et al., 1981; Knight et al., 2015), the role of the alcohol Z8-12:OH in the pheromone blend appears to be less crucial (Ammagarahalli & Gemeno, 2014; Knight et al., 2015). Other alcohols have been described as having an effect on the pheromone response of *G. molesta* males. For example, dodecenol (12:OH), a component identified in pheromone gland extracts and volatile collections, affects the behavior of males when they are close to the pheromone source (Cardé et al., 1975a,b; Cardé et al., 1979). Intriguingly, the alcohol pheromone component of *Cydia pomonella* L. [codlemone, (*E*,*E*)8,10-12:OH] increases *G. molesta* male captures when mixed with the 3-component pheromone blend (Evenden & McClaughlin, 2005; Knight et al., 2014). These observations prompted us to reinvestigate the role of alcohols in the pheromone system of *G. molesta* and to determine if plant volatiles could return attraction to a blend lacking *Z*8-12:OH. We also tested if the absence of *Z*8-12:OH from the pheromone blend could be restored with codlemone or 12:OH.

Materials and methods

Insects

The colony of *G. molesta* originated from a laboratory rearing established at Piacenza, Italy, with insects collected from peach orchards in that locality, and was maintained at the University of Lleida, Spain, since 2005. Larvae were reared on a semi-synthetic diet modified from Ivaldi-Sender (1974) under a L16:D8 photoregime at 25 ± 1º C. Pupae were separated by sex and were placed in 4-L polypropylene containers provided with a cotton ball soaked in 10% sugar water. Adults were separated daily and used when 2-4 days old.

Chemicals

Sex pheromone components of *G. molesta*, *Z*8-12:Ac, *E*8-12:Ac, *Z*8-12:OH, 12:OH, and the major pheromone component of *C. pomonella*, codlemone, *E*,*E*-8,10-12:OH, were purchased from Pherobank (Wageningen, The Netherlands) and they were shown to be >99% pure by GC-FID. Plant odorants were purchased from Sigma-Aldrich (Madrid, Spain, chemical purity, product and lot numbers in Table 1). A stock solution of *Z*8-12:Ac, *E*8-12:Ac, and *Z*8-12:OH in a 100:6:10 ratio, respectively, was prepared from the pure compounds, and dilutions were made in *n*-hexane as needed. The plant blend was prepared from pure compounds diluted in hexane with the same composition as reported by Varela et al. (2011) (Table 1), and it was diluted in *n*-hexane as needed. Further pheromone and pheromone:plant blends are described for each experiment.

Flight tunnel

The flight tunnel consisted of a 150 x 45 x 45 cm (length x height x width) glass cage with a solid white floor and a sliding door on one of the long-sides. A 30-cm-diameter fan at the upwind end of the tunnel, and a 20-cm-diameter exhaust vent at the downwind end created a

0.35 m s^{-1} wind flow of unfiltered room air through the tunnel that was vented outside of the building. Temperature inside of the tunnel was 23 ± 1°C. The flight tunnel was illuminated from above with fluorescent light bulbs producing 1500 lux of white light. Tests were carried out during the last 3 hours of the photophase and occasionally into the first hour of the scotophase, but in this case the daylight illumination was left on. Males were placed individually in 10-cm-long x 2-cm-diameter glass tubes, with perforated aluminum lids covering both openings. They were transferred to the flight tunnel room 30 to 60 min before the beginning of the test. Test odors were applied in 10 μl loads to 10 x 15 mm hexane-rinsed filter paper pieces (Whatman® No. 1, Sigma-Aldrich, Barcelona, Spain). The filter paper was held by a 30-mm alligator clip and was placed in a fume hood for 5-10 min to let dry before transferred to a 20 ml clean vial, where it remained until tested in the flight tunnel 5-180 min later. The glass vial containing the test odor was opened and closed inside the flight tunnel to minimize contamination of the flight tunnel room. The base of the alligator clip was inserted vertically in the slot of a 25-mm binder clip, itself fixed to a 70-mm diameter aluminum metal plate located on top of a 25-cm-tall metal-wire platform (0.5-cm-mesh). The filter paper's flat surface faced the wind flow to attain a sufficiently turbulent odor plume. Four to six males were flown to each filter paper treatment before changing the paper for another treatment. At the end of a test day a filter paper had been used with 8-10 males, so that filter papers were outside of the glass vial and exposed to the wind flow for a maximum of 30 min before being discarded. In a given day only one filter paper was used for each treatment. After placing the odor stimulus in the upwind platform the male cage was placed in the flight tunnel on top of a metal-wire platform similar to the one used for the odor source and 1.5 m downwind from it. The aluminum lids were opened and we recorded if the male took flight, started upwind oriented flight (zig-zagging upwind flight) or landed on the filter paper containing the stimulus source. Each male was given 2 min to respond. At the end of the day

153 the interior of the flight tunnel was cleaned with ethanol and the exhaust fan was left on. All
154 glass and metal utensils were thoroughly rinsed in acetone and oven-dried at 200 °C.
155 Treatment order was randomized. Due to the high total number of treatments (24 and 23, for
156 experiments 2 and 3, respectively) it was necessary to alternate treatments in different days,
157 or to make morning and afternoon runs in same day with insects trained under different
158 photoperiods.
159
160 **Effect of plant volatiles on the response to overdosed pheromone blends**
161 We tested the response of males to 0.1 *ng* to 3 μg pheromone doses and from this test a 2 μg
162 concentration was chosen as the overdose treatment to be used in this experiment. The
163 overdose pheromone was mixed with several doses of the plant blend at 1:0.0001 to 1:100
164 pheromone: plant ratios in decaic steps, and these treatments were tested in the wind tunnel
165 together with the optimal pheromone concentration (100 ng), the overdose pheromone (2 μg)
166 and the plant volatile alone (10 μg). In this experiment, in addition to counting the number of
167 males flying, orienting and contacting the pheromone source, we also recorded whether the
168 oriented males showed "arrested" flight, which is a typical behavior displayed by male moths
169 when they are exposed to high pheromone concentrations, and which consists on the male
170 stopping for a few second in mid-air at a few cm from the odor source after having performed
171 oriented flight (Keunen & Baker, 1982).
172
173 **Effect of plant volatiles on the response to pheromone blends with suboptimal *Z*/*E***
174 **acetate isomer ratios**
175 A stock solution with a 100:10 ratio (100:10 ng) of *Z*8-12:Ac and *Z*8-12:OH , respectively,
176 was mixed with varying ratios of *E*8-12:Ac to make 0%, 50%, 100%, 150% and 200 % *E*-
177 blends (percentage is with respect to the major pheromone component, *Z*8-12:Ac). Plant

blend was added to these pheromone blends in ratios of 1:0, 1:1, 1:10 and 1:100 pheromone major compound:plant. As a control we tested the optimal *E*8-12:Ac ratio (6%). In addition we tested a low-concentration (1 ng) optimal-*E*8-12:Ac-ratio (6%) blend, and this blend with plant volatiles (1:1000 ratio, respectively) to check the attractiveness of the plant volatile blend as determined in a previous study using this same treatments (Varela et al., 2011).

Effect of alcohols and plant volatiles on the response to a pheromone blend lacking *Z*8-12:OH

A stock solution with a 100:6 ratio (100:6 ng) of *Z*8-12:Ac and *E*8-12:Ac, respectively, was mixed with varying ratios of *Z*8-12:OH, 12:OH, codlemone or the plant blend to make blends with a constant quantity of *Z/E* and 0%, 3%, 10%, 30% and 100% of the alcohols, or 1:0.1 to 1:1000 pheromone: plant blend ratios, with respect to the major pheromone compound *Z*8-12:Ac in both cases. In addition, the individual components of the plant blend were tested individually with the *Z/E* blend using the same amount of each one of them that was used in the blend. Because the synergistic effect of the plant blend occurred only at the lowest pheromne:plant ratio (1:0.1), we did further tests with lower pheromone:plant ratios (1:0.01 and 1:0.001). In addition we explored the role of each plant blend ingredient on pheromone-plant synergism using the same ratio of the individual components as in the 1:0.1 pheromone:plant blend.

Statistical analyses

A generalized linear model (GLM) with a binomial family link in the package lme4 of R (R Development Core Team, 2015) was used to analyze the percentage of males responding in the wind tunnel. Behavioral categories (take flight, oriented flight, contact and arrested flight) were analyzed separately. Planned pairwise comparisons between treatment pairs were

performed with the glht function of R using Tukey´s alpha correction method. The data shown in the figures corresponds with the predictions from the model. Raw data and R codes (with selected statistical outputs, including models and pairwise tests with their respective P-values, and tables with the observed data and the predicted values from the models) are provided as supplementary files. Whenever the term "significant" is used in the text it means that the significance level is < 0.05.

Results

Effect of plant volatiles on the response to overdosed pheromone blends

There was a gradual raise in the behavioral response of males to increasing amounts of pheromone blend from 0.001 to 0.1 μg (Figure 1). As the concentration increased further a progressively higher percentage of orienting males displayed arrested flight behavior close to the source, resulting in 30% contacts with 2 μg and almost no contacts with 3 μg. For the following test the 2 μg concentration was chosen as the overdose treatment, and 0.1µg as the optimal dose.

Plant blend alone stimulated 17% of the males to fly, but none oriented to or contacted the stimulus (data not shown). 85% of the males oriented to the overdosed pheromone, but many also arrested, and so there was only a 27% of contacts to the overdosed pheromone, significantly less than to the optimal pheromone concentration which had 87% contacts and no arrested flights (Figure 2). Addition of varying ratios of the plant blend to the overdosed pheromone did not reduce the number of arrested flights, and so it did not increase the number of contacts and did not help increase response with respect to the overdosed pheromone (Figure 2).

Effect of plant volatiles on the response to pheromone blends with suboptimal *Z*/*E* isomer ratios

Neither hexane nor the plant blend alone attracted any males, but the plant blend significantly increased responses to an under-dosed pheromone blend (12.13 and 47.42% contacts, respectively, $P < 0.01$), confirming the synergistic power of this blend. Unnaturally high or low ratios of *E*8-12:Ac resulted in significantly lower percentages of response, at any behavioral category, than the optimal 6% *E*-isomer ratio (Figure 3). Addition of the plant

blend to the unnatural *E*-ratio blends increased the number of flights to the 50%, 150% and 200% *E*-blends, and the number of oriented flights to the 150% *E*-blend with respect to the no-plant off-blend (Figure 3). All these synergistic effects were observed only at the 1:10 pheromone:plat ratio (10 μg of plant odor), but not at higher ratios. A trend for increased contacts with the plant blends was observed but these differences were not statistically significant.

Effect of alcohols and plant volatiles on the response to a pheromone blend lacking *Z*8-12:OH

The addition of *Z*8-12:OH, 12:OH, codlemone and plant odors synergized male responses to an optimal *Z*/*E* blend-ratio pheromone that lacked *Z*8-12:OH, but the effect depended on the compound and concentration used (Figure 4). *Z*8-12:OH synergized all response categories at the 10% dose, and only take flight at the 3% dose. Codlemone synergized take-flight at 10% and 20% doses and oriented flight and contact at the 10% dose, and the plant blend synergized all behavioral steps at the 1:0.1 ratio. Several of the other treatments increased male responses to levels not significantly different to the optimal blend, but in these treatments the response was not significantly different from the blend lacking alcohol either, so synergistic effect was weaker than in the other treatments (e.g., *Z*8-12:OH at 20, 50 and 100%, all the 12:OH doses, and plant blend at the 1:1, 1:1o and 1:100 ratios, Figure 4). Finally, some treatments did not have any positive or negative effect on male response (e.g., *Z*8-12:OH 3% orient and contact, codlemone 3%, 5%, 100% oriented and contact and pheromone:plant 1:1000 all behavioral categories, Figure 4).

Because the synergistic effect of the plant blend occurred only at the lowest pheromone:plant ratio (1:0.1), we did further tests with still lower plant blend doses. In addition, because the

plant blend is composed of several chemicals and one of them is an alcohol [(*Z*)-3-hexenol], we further explored the role of each plant blend ingredient on pheromone-plant synergism. Here, as in the previous test, the 0% *Z*8-12:OH blend performed worse than the optimal 10% *Z*8-12:OH blend, and the plant blend synergized at the 1:0.1 pheromone:plant ratio, however lower plant ratios had no, or only slight, synergistic effects (Figure 5). The individual compounds (except for benzaldehyde) synergized male responses, but their individual effect was not as strong as in a blend.

Discussion

Male *G. molesta* responses peaked at optimal pheromone concentrations and optimal ratios of the two acetate isomers, as reported in earlier studies (Baker et al., 1981; Linn and Roelofs, 1983; Willis and Baker, 1988; Knight et al., 2015). We have shown previously that plant volatiles synergize male response to a below-optimal pheromone dose (Varela et al., 2011), however in the present study we failed to observe plant synergism to an above-optimal pheromone dose. This could be explained by the different mechanisms by which low and high pheromone doses reduced response levels. With low doses the olfactory system is under-stimulated and therefore the stimulus arriving to the CNS is probably below the behavioral response threshold. Plant odors, which in our test did not stimulate male flight on their own but that under natural conditions could indicate the presence of conspecific females (Landolt & Phillips, 1997), may lower the behavioral response threshold to pheromone, and so increase responses to below optimal pheromone doses. With high stimulus doses however, the olfactory system is sufficiently stimulated from the distance to arouse take flight and oriented flight, but males interrupt upwind progress (i.e., arrest) close to the odor source probably due to adaptation at the peripheral olfactory level (De Bruyne & Baker, 2008). Under these conditions the effect of the plant odor is probably negligible, given that the pheromone receptors are probably adapted and unable to transmit a proper pheromone stimulus to the brain, despite simultaneously processing an optimal plant signal. Schmidt-Büsser et al. (2009) report behavioral synergism to an overdose pheromone blend in the tortricid *Eupoecilia ambiguella* Hübner, so at least in this species the plant blend can cancel out the effect of a high pheromone dose, but more studies are needed to determine if this happens in more species.

As the ratio of *E*8-12:Ac to *Z*8-12:Ac increased or decreased past the optimal 6% level, fewer males were able to initiate or locate the pheromone source in the wind tunnel. Mixing the plant blend with these suboptimal off-blends restored some of their attractiveness, but did so mainly for the earlier stages of response (take off and oriented flight), and not for contact with the pheromone source. The relatively weak effect of plant odors helping males respond to or locate pheromone off-blends may stem from the strong selective pressure imposed by costly mating mistakes with species producing similar pheromone blends (Cardé & Haynes, 2004). Male response to a species-specific pheromone blend should not be strongly affected by the presence of plant volatiles in the environment because this would challenge pheromone communication. Functional partition of olfactory receptor neurons into pheromone and plant receptors protects the pheromone signal from undesirable interference by background stimuli, such as plant odors (Martin & Hildebrand, 2010). The response of the main pheromone receptor neurons of *G. molesta* (i.e., those tuned to *Z*8-12:Ac and *E*8-12:Ac) is highly specific to their specific ligands and relatively unaffected by the presence of plant volatiles in the blend, whereas these plant volatiles are sensed by other type of receptor neurons on the antenna which do not respond to pheromone stimuli (Ammagarahalli & Gemeno, 2014; 2015). The behavioral effect of plant stimuli on the response of *G. molesta* to pheromone blends is probably occurring at the central nervous system level, where the pheromone information sensed by pheromone receptor neurons is integrated with the plant information sensed by plant-specific receptor neurons in several moth species (Martin & Hildebrand, 2010). There are, however, examples of plant volatiles affecting the sensitivity and response dynamics of pheromone olfactory neurons in other insect species, so pheromone and plant stimuli are not completely isolated in all species (De Bruyne & Baker, 2008; Deisig et al., 2014).

317 The plant volatile blend did not restore male response to a high-concentration pheromone
318 blend, but it did partially compensate blends with offset ratios of the two main pheromone
319 components, and it did bring back a normal level of response to a pheromone blend lacking
320 the minor component Z8-12:OH. The effect was not caused by any particular ingredient in
321 the plant blend, not even the alcohol (*Z*)-3-hexenol, which constituted 13% of the plant blend,
322 but to the plant blend as a whole. We have not found in the moth literature other reports
323 where a missing minor sex pheromone ingredient was replaced by a plant odor, so we do not
324 know how common this is in other species. The alcohols 12:OH and codlemone (the main
325 ingredient of *C. pomonella´*s sex pheromone) also restored male response to a *Z*8-12:OH-
326 defficient pheromone blend, so Z8-12:OH appears to play an uncertain role in the pheromone
327 of *G. molesta*. Support for the importance of *Z*8-12:OH arrives from studies showing that
328 calling females release it (Baker et al., 1980), that males do not respond to a blend containing
329 no *Z*8-12:OH, and that just a small percentage of the alcohol (1-3%) is needed to increase
330 male attraction significantly (Baker & Cardé, 1979; Linn & Roelofs, 1983). However other
331 studies show that *Z*8-12:OH is not necessary for attraction (Roelofs & Cardé, 1974; Yang et
332 al., 2002), that its proportion in the blend can vary widely without affecting male response
333 (Linn & Roelofs, 1983), or and females do not release it (Lacey & Sanders, 1992). Its
334 presence in female glands is very variable, occurring in several world populations (Knight et
335 al., 2014), whereas little or no traces of *Z*8-12:OH are reported in others (Boo, 1998; El-Syed
336 & Trimble, 2002). The inconsistent performance of *Z*8-12:OH reported in the literature, and
337 its ductility in being replaced by other alcohols from same or different species (i.e., *C.*
338 *pomonella*), or even by plant odors, as shown in here, suggest that its role is not comparable
339 to that of the two main ingredients, *Z*8-12:Ac and *E*8-12:Ac. As indicated earlier, these
340 compounds are an essential part of the blend and must be present at a very specific ratio in
341 order to elicit optimal levels of male response (Baker et al., 1981; Knight et al., 2015). Field

342 tests should be carried out to clarify, under natural conditions, the role of third ingredients in
343 blends having the two main pheromone components (*Z*8-12:Ac and *E*8-12:Ac).
344
345 One final observation concerning the production of *Z*8-12:OH by *G. molesta* females is its
346 possible implication in interspecific relationships. Closely-related species sharing similar
347 pheromone blends, and therefore at risk of interspecific mating mistakes, may evolve
348 olfactory signals designed to deter mutual attraction (Cardé & Haynes, 2004). *Z*8-12:OH
349 inhibits males of two species that are closely related to, and that use a similar ratio of the *Z*/*E*-
350 acetates as main pheromone ingredients, as *G. molesta* [i.e., *Grapholita funebrana*
351 (Treitschke) (Guerin et al., 1986), and *Grapholita prunivora* (Walsh) (Baker & Cardé,
352 1979)], so it is possible that the production and release of *Z*8-12:OH by *G. molesta* females
353 may serve an interspecific avoidance function. In a similar fashion, two compounds in the
354 pheromone glands of *Grapholita funebrana* (*Z*8-14:Ac and *Z*10-14:Ac) do not play a role in
355 attracting this species but they reduce captures of *G. molesta* (Guerin et al., 1986).
356
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363
364 **Appendix A. Supplementary material**
365 Ammagarahalli et al. R codes (R codes, output, and explanations, available as .doc file)
366 Ammagarahalli et al. RAW DATA (available as .xlsx file) at http://dx.doi.org/...

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532 **Figure legends**

533 Figure 1. Effect of pheromone quantity on the wind tunnel response of *G. molesta* males.

534 Figure 2. Effect of plant odor on the wind tunnel response of *G. molesta* males to overdosed
535 sex pheromone. Males were exposed to an optimal pheromone dose (light grey bar, 0.1μg), to
536 an unnaturally high pheromone dose (dark grey bar, 2 μg), and to the overdosed pheromone
537 mixed with varying amounts of a plant odor (white bars). Percentages of males responding
538 (take flight, oriented flight, contact, and arrested flight) are the predicted responses from the
539 estimated parameters of general linear models (GLM). Asterisks indicate significant
540 differences between the optimal sex pheromone dose and all other treatments by means of
541 planned pair-wise comparisons using Tukey's test ($P < 0.05$).

542 Figure 3. Effect of plant odor on the wind tunnel response of *G. molesta* males to sex
543 pheromone blends containing a constant 100:10 ratio of *Z*8-12:Ac to *Z*8-12:OH (100:10 ng,
544 respectively), and a) an optimal ratio of the minor component *E*8-12:Ac (6% relative to the
545 major component, dark grey bar), or b) suboptimal ratios of *E*8-12:Ac (0, 6, 50, 100, 150 and
546 200%, light grey bars). The blends with suboptimal *E*8-12:Ac ratios were mixed with varying
547 amounts of a plant odor (1:1, 1:10 and 1:100, major pheromone compound:plant odor
548 respectively, white bars). Percentages of males responding (take flight, oriented flight, and
549 contact) are the predicted responses from the estimated parameters of general linear models
550 (GLM). Asterisks indicate significant differences between each unbalanced *E*8-12:Ac ratio
551 (light grey bars) and those blends with the plant odor (white bars) by means of pair-wise
552 comparisons using Tukey's test ($P < 0.05$). The response to the optimal blend (dark grey bar)
553 was significantly higher than to any of the unbalanced *E*-blends (light grey bars, $P < 0.05$).

554 Figure 4. Effect of alcohols (*Z*8-12:OH, 12:OH, *E*8,*E*10-12:OH) and plant odor on the wind
555 tunnel response of *G. molesta* males to blends containing a constant 100:6 ratio of *Z*8-12:ac

556 to *E*8-12:Ac (100:6 ng, respectively, light grey bar). The alcohols were added at 3, 10, 20, 50
557 and 100% relative to *Z*8-12:Ac, and the plant blend at 1:0.1 to 1:1000 major pheromone
558 component:plant ratios. Percentages of males responding (take flight, oriented flight, and
559 contact) are the predicted responses from the estimated parameters of general linear models
560 (GLM). Planned pair-wise comparisons used Tukey's test ($P < 0.05$) where "a" indicates a
561 significantly lower response than the optimal blend (10% *Z*8-12:OH, dark-grey bar), and "b"
562 indicates a significant higher response than the suboptimal blend (0% Z8-12:OH, light grey
563 bar).

564 Figure 5. Effect of a plant odor blend and its individual components on the response of *G.*
565 *molesta* males to blends containing a constant 100:6 ratio of *Z*8-12:Ac to *E*8-12:Ac (100:6
566 ng, respectively) and no *Z*8-12OH (suboptimal blend, light grey bar), the acetate blend with a
567 10% Z8-12:OH (relative to *Z*8-12:Ac, optimal blend, dark grey bar), and the acetate blend
568 with no alcohol and mixed with several ratios of the plant blend (1:0.001, 1:0.01 and 1:0.1,
569 major pheromone component:plant, respectively), or with the individual plant ingredients in
570 the same quantity as in the 1:0.1 pheromone:plant odor blend. Percentages of males
571 responding (take flight, oriented flight, and contact) are the predicted responses from the
572 estimated parameters of general linear models (GLM). Planned pair-wise comparisons used
573 Tukey's test ($P < 0.05$) where "a" indicates a significantly lower response than the optimal
574 blend (10% Z8-12:OH, dark-grey bar), and "b" indicates a significant higher response than
575 the suboptimal blend (0% Z8-12:OH, light grey bar).

Table

Table 1. List of plant odorantas, commertial source and purity, and individual proportion in the plant blend

Compound name	Blend ratio	CAS	Provider	Product number	Lot number	Purity (≥ %)
(*Z*)-3-hexenyl acetate	70	3681-71-8	S. Aldrich	W317101	MKBD9967V	98
(*Z*)-3-hexenol	14	928-96-1	Fluka	5306	1323459	98
(*E*)-2-hexenal	2	6728-26-3	S. Aldrich	W256005	19996MH	95
Benzaldehyde	13	100-52-7	S. Aldrich	12010	1412950	99
Benzonitrile	1	100-47-0	S. Aldrich	12722	BCBH8265V	98

Figure 1

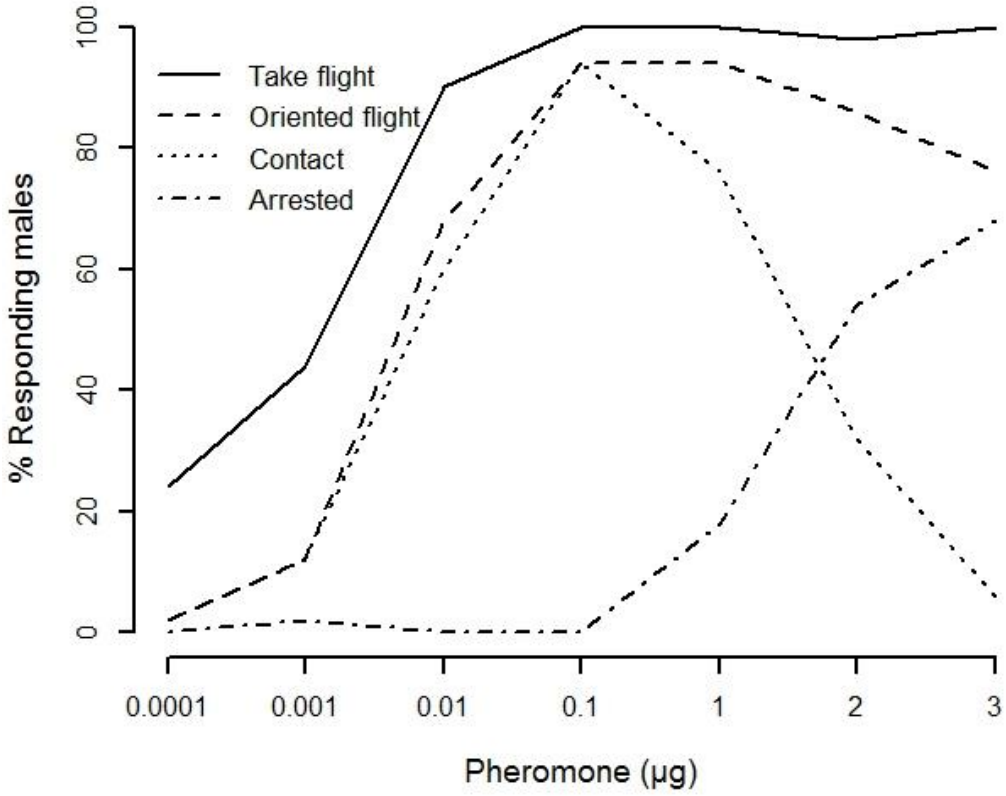

Take flight
Oriented flight
Contact
Arrested
% Responding males
0
20
40
60
80
100
0.0001
0.001
0.01
0.1
1
2
3
Pheromone (µg)

Figure 2

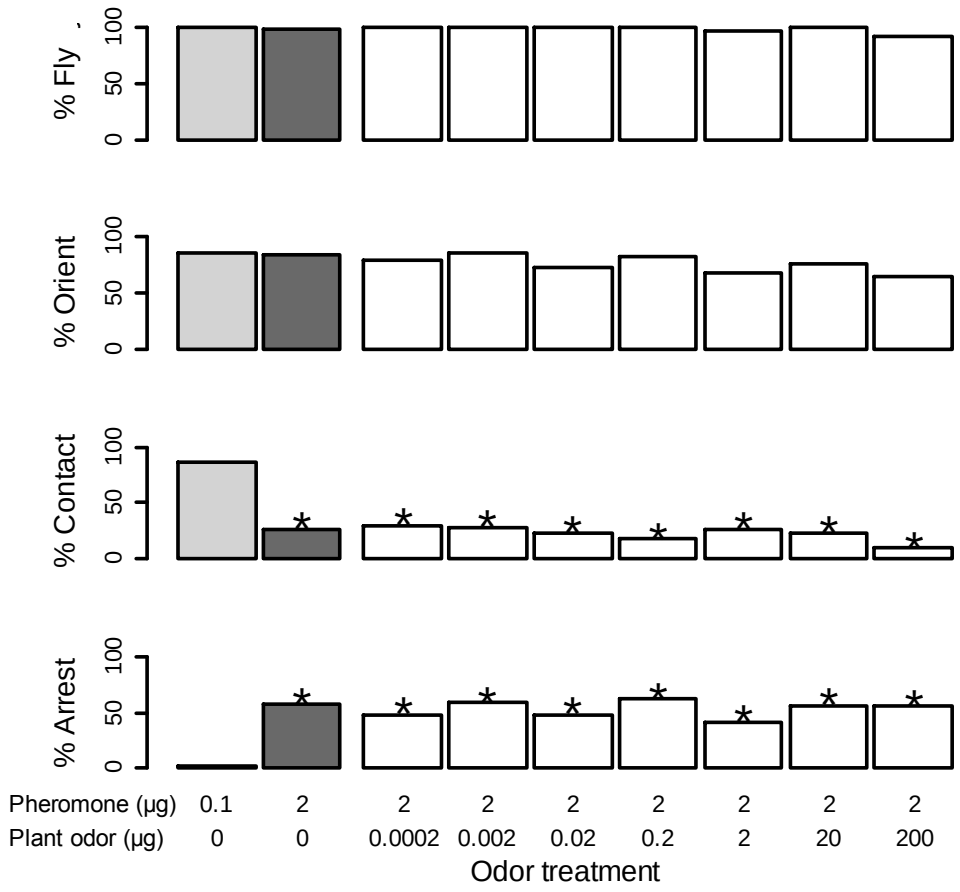

% Fly
% Orient
% Contact
% Arrest
0
50
100
Pheromone (µg) 0.1 2 2 2 2 2 2 2 2
Plant odor (µg) 0 0 0.0002 0.002 0.02 0.2 2 20 200
Odor treatment

Figure 3

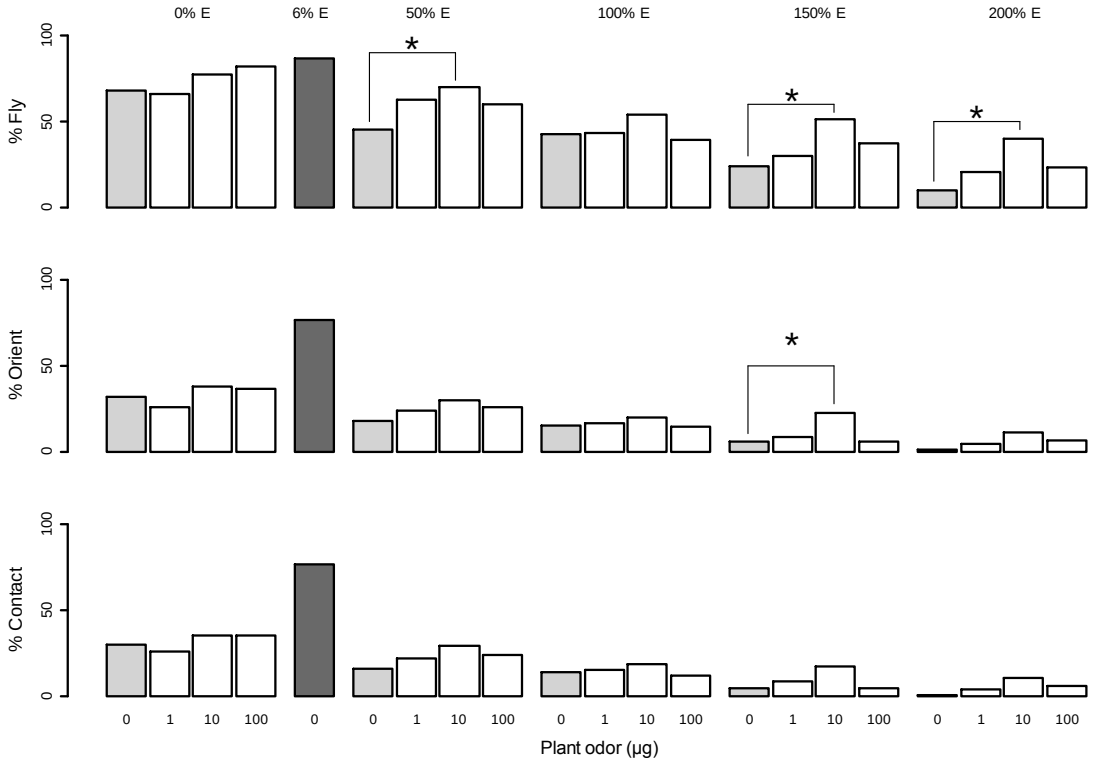

0% E
6% E
50% E
100% E
150% E
200% E
% Fly
% Orient
% Contact
0
50
100
*
0 1 10 100
Plant odor (µg)

Figure 4

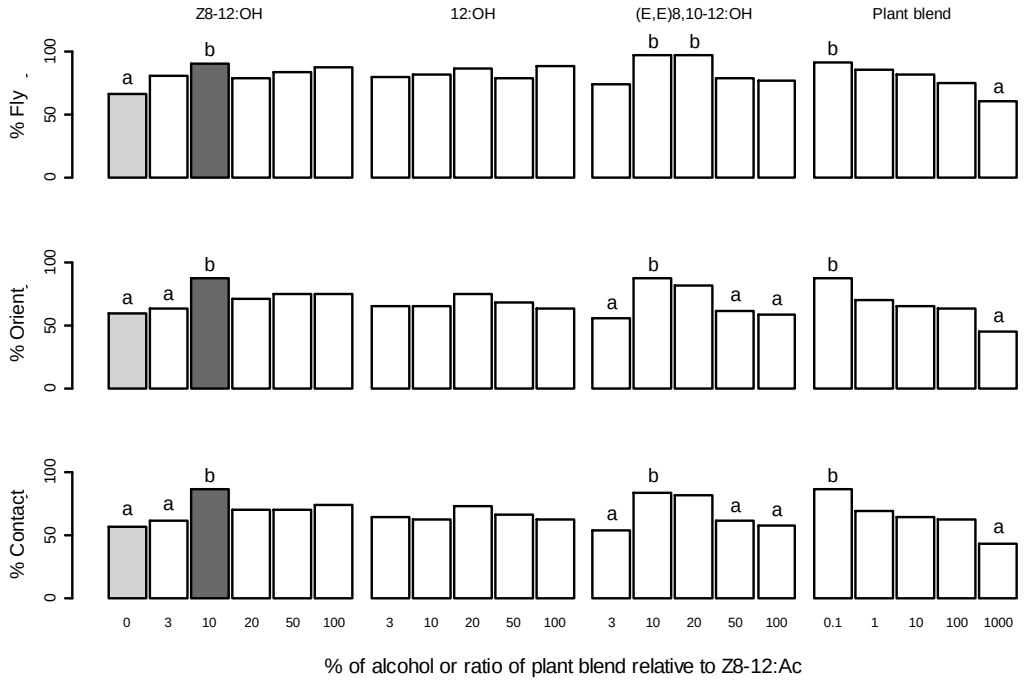
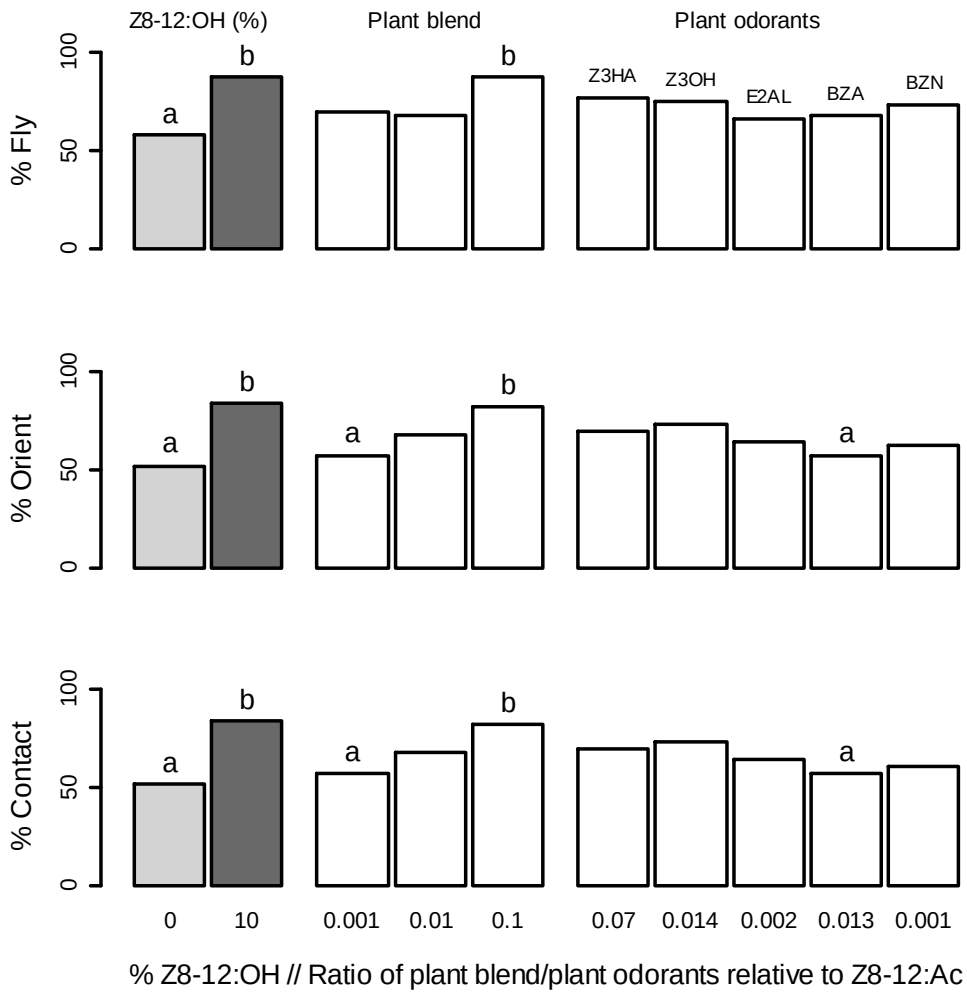

Z8-12:OH
12:OH
(E,E)8,10-12:OH
Plant blend
% Fly
% Orient
% Contact
0
50
100
a
b
0 3 10 20 50 100 3 10 20 50 100 3 10 20 50 100 0.1 1 10 100 1000
% of alcohol or ratio of plant blend relative to Z8-12:Ac

Figure 5


Z8-12:OH (%)
Plant blend
Plant odorants
% Fly
% Orient
% Contact
0
50
100
a
b
Z3HA
Z3OH
E2AL
BZA
BZN
0
10
0.001
0.01
0.1
0.07
0.014
0.002
0.013
0.001
% Z8-12:OH // Ratio of plant blend/plant odorants relative to Z8-12:Ac

Role of plant volatiles and hetero-specific pheromone com
male *Grapholita molesta* (Lepidoptera: Tortricidae) t

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ponents in the wind tunnel response of o modified sex pheromone blends

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date	time	trt	fly	of	contact	arrest
20-Apr-10	15:40:00	A	Y	N	N	N
20-Apr-10	15:43:30	A	Y	N	N	N
20-Apr-10	15:47:00	A	Y	N	N	N
20-Apr-10	15:50:30	A	Y	Y	Y	N
20-Apr-10	15:54:00	A	N	N	N	N
20-Apr-10	16:50:00	A	N	N	N	N
20-Apr-10	16:53:30	A	N	N	N	N
20-Apr-10	16:57:00	A	N	N	N	N
20-Apr-10	15:57:30	B	Y	Y	Y	N
20-Apr-10	16:01:00	B	Y	Y	Y	N
20-Apr-10	16:04:30	B	Y	N	Y	N
20-Apr-10	16:08:00	B	Y	N	Y	N
20-Apr-10	16:11:30	B	Y	N	N	N
20-Apr-10	17:04:00	B	Y	N	N	N
20-Apr-10	17:07:30	B	N	N	N	N
20-Apr-10	17:11:00	B	Y	N	N	N
22-Apr-10	17:00:30	A	N	N	N	N
22-Apr-10	16:23:20	A	N	N	N	N
22-Apr-10	16:26:30	A	N	N	N	N
22-Apr-10	16:29:40	A	N	N	N	N
22-Apr-10	16:32:50	A	N	N	N	N
22-Apr-10	16:36:00	A	N	N	N	N
22-Apr-10	17:48:50	A	N	N	N	N
22-Apr-10	17:52:00	A	Y	N	N	N
22-Apr-10	17:55:10	A	N	N	N	N
22-Apr-10	17:58:20	A	N	N	N	N
22-Apr-10	18:01:30	A	N	N	N	N
22-Apr-10	15:51:40	B	N	N	N	N
22-Apr-10	15:54:50	B	N	N	N	N
22-Apr-10	15:58:00	B	N	N	N	N
22-Apr-10	16:01:10	B	N	N	N	N
22-Apr-10	16:04:20	B	N	N	N	N
22-Apr-10	17:29:50	B	Y	N	N	N
22-Apr-10	17:33:00	B	N	N	N	N
22-Apr-10	17:36:10	B	N	N	N	N
22-Apr-10	17:39:20	B	Y	N	N	N
22-Apr-10	17:42:30	B	Y	N	N	N
22-Apr-10	17:45:40	B	N	N	N	N
26-Apr-10	15:55:00	A	N	N	N	N
26-Apr-10	15:57:50	A	N	N	N	N
26-Apr-10	16:00:00	A	Y	N	N	N
26-Apr-10	16:02:50	A	N	N	N	N
26-Apr-10	16:05:00	A	N	N	N	N
26-Apr-10	17:10:00	A	N	N	N	N
26-Apr-10	17:12:50	A	N	N	N	N
26-Apr-10	17:15:00	A	N	N	N	N
26-Apr-10	17:17:50	A	N	N	N	N
26-Apr-10	17:20:00	A	N	N	N	N
26-Apr-10	16:32:50	B	Y	N	N	N

Treatment names
A= 0.1 ng
B= 1 ng
C= 10 ng
D= 100 ng
E= 1000 ng
F= 2000 ng
G= 3000 ng

26-Apr-10	16:35:00	B	Y	Y	Y	N
26-Apr-10	16:37:50	B	Y	Y	N	Y
26-Apr-10	16:40:00	B	N	N	N	N
26-Apr-10	16:42:50	B	Y	Y	Y	N
26-Apr-10	17:50:00	B	N	N	N	N
26-Apr-10	17:52:50	B	Y	N	N	N
26-Apr-10	17:55:00	B	N	N	N	N
26-Apr-10	17:57:50	B	N	N	N	N
26-Apr-10	18:00:00	B	Y	N	N	N
27-Apr-10	15:20:00	C	Y	Y	Y	N
27-Apr-10	15:22:50	C	Y	Y	Y	N
27-Apr-10	15:25:00	C	Y	Y	Y	N
27-Apr-10	15:27:50	C	Y	Y	Y	N
27-Apr-10	15:30:00	C	Y	Y	Y	N
27-Apr-10	16:35:00	C	Y	N	N	N
27-Apr-10	16:37:50	C	Y	N	N	N
27-Apr-10	16:40:00	C	Y	Y	Y	N
27-Apr-10	16:42:50	C	Y	Y	Y	N
27-Apr-10	16:45:00	C	N	N	N	N
27-Apr-10	17:52:50	C	Y	Y	Y	N
27-Apr-10	17:55:00	C	Y	Y	Y	N
27-Apr-10	15:32:50	E	Y	Y	N	Y
27-Apr-10	15:35:00	E	Y	Y	N	Y
27-Apr-10	15:37:50	E	Y	Y	N	Y
27-Apr-10	15:40:00	E	Y	Y	N	Y
27-Apr-10	15:42:50	E	Y	Y	Y	N
27-Apr-10	16:47:50	E	Y	Y	Y	N
27-Apr-10	16:50:00	E	Y	N	N	N
27-Apr-10	16:52:50	E	Y	Y	Y	N
27-Apr-10	16:55:00	E	Y	Y	Y	N
27-Apr-10	16:57:50	E	Y	N	N	N
27-Apr-10	17:57:50	E	Y	Y	Y	N
27-Apr-10	18:00:00	E	Y	Y	Y	N
28-Apr-10	15:45:00	C	N	N	N	N
28-Apr-10	15:47:50	C	Y	Y	Y	N
28-Apr-10	15:50:00	C	Y	N	N	N
28-Apr-10	15:52:50	C	Y	Y	Y	N
28-Apr-10	15:55:00	C	N	N	N	N
28-Apr-10	17:20:00	C	Y	Y	Y	N
28-Apr-10	17:22:50	C	Y	Y	Y	N
28-Apr-10	17:25:00	C	Y	N	N	N
28-Apr-10	17:27:50	C	Y	Y	N	N
28-Apr-10	16:10:00	E	Y	Y	Y	N
28-Apr-10	16:12:50	E	Y	Y	Y	N
28-Apr-10	16:15:00	E	Y	Y	Y	N
28-Apr-10	16:17:50	E	Y	Y	N	Y
28-Apr-10	16:20:00	E	Y	Y	Y	N
28-Apr-10	16:37:50	E	Y	Y	Y	N
28-Apr-10	16:40:00	E	Y	Y	Y	N
28-Apr-10	16:42:50	E	Y	Y	Y	N

28-Apr-10	16:45:00	E	Y	Y	Y	N
28-Apr-10	15:32:50	G	Y	Y	N	Y
28-Apr-10	15:35:00	G	Y	Y	N	Y
28-Apr-10	15:37:50	G	Y	Y	N	Y
28-Apr-10	15:40:00	G	Y	Y	N	Y
28-Apr-10	15:42:50	G	Y	Y	N	Y
28-Apr-10	17:10:00	G	Y	Y	N	Y
28-Apr-10	17:12:50	G	Y	Y	N	Y
28-Apr-10	17:15:00	G	Y	N	N	N
28-Apr-10	17:17:50	G	Y	Y	N	Y
29-Apr-10	16:10:00	C	Y	Y	Y	N
29-Apr-10	16:12:50	C	Y	Y	Y	N
29-Apr-10	16:15:00	C	Y	N	N	N
29-Apr-10	16:17:50	C	Y	N	N	N
29-Apr-10	16:20:00	C	Y	Y	Y	N
29-Apr-10	17:32:50	C	Y	Y	N	N
29-Apr-10	17:35:00	C	N	N	N	N
29-Apr-10	17:37:50	C	Y	Y	Y	N
29-Apr-10	17:40:00	C	Y	Y	Y	N
29-Apr-10	15:20:00	E	Y	Y	Y	N
29-Apr-10	15:22:50	E	Y	Y	Y	N
29-Apr-10	15:25:00	E	Y	Y	N	Y
29-Apr-10	15:27:50	E	Y	Y	Y	N
29-Apr-10	15:30:00	E	Y	Y	Y	N
29-Apr-10	16:47:50	E	Y	Y	Y	N
29-Apr-10	16:50:00	E	Y	Y	Y	N
29-Apr-10	16:52:50	E	Y	Y	Y	N
29-Apr-10	16:55:00	E	Y	Y	Y	N
29-Apr-10	15:57:50	F	Y	Y	Y	N
29-Apr-10	16:00:00	F	Y	Y	N	Y
29-Apr-10	16:02:50	F	Y	Y	N	Y
29-Apr-10	16:05:00	F	Y	Y	Y	N
29-Apr-10	16:07:50	F	Y	Y	N	Y
29-Apr-10	17:20:00	F	Y	Y	Y	N
29-Apr-10	17:22:50	F	Y	Y	N	Y
29-Apr-10	17:25:00	F	Y	Y	Y	N
29-Apr-10	17:27:50	F	Y	Y	Y	N
29-Apr-10	17:30:00	F	Y	Y	N	Y
29-Apr-10	18:07:50	F	Y	Y	Y	N
29-Apr-10	18:10:00	F	Y	N	N	N
29-Apr-10	16:35:00	G	Y	Y	N	Y
29-Apr-10	16:37:50	G	Y	Y	N	Y
29-Apr-10	16:40:00	G	Y	Y	N	Y
29-Apr-10	16:42:50	G	Y	N	N	N
29-Apr-10	16:45:00	G	Y	N	N	N
29-Apr-10	17:52:50	G	Y	Y	N	Y
29-Apr-10	17:55:00	G	Y	N	N	N
29-Apr-10	17:57:50	G	Y	Y	N	Y
29-Apr-10	18:00:00	G	Y	Y	N	Y
29-Apr-10	18:02:50	G	Y	Y	N	Y

29-Apr-10	18:05:00	G	Y	Y	N	N
3-May-10	15:49:00	C	Y	N	N	N
3-May-10	15:51:20	C	Y	Y	Y	N
3-May-10	15:53:40	C	Y	Y	Y	N
3-May-10	15:56:00	C	Y	Y	Y	N
3-May-10	15:58:00	C	Y	Y	Y	N
3-May-10	17:22:20	C	Y	Y	N	N
3-May-10	17:24:40	C	Y	Y	Y	N
3-May-10	17:27:00	C	Y	Y	Y	N
3-May-10	17:29:20	C	Y	Y	Y	N
3-May-10	17:31:40	C	Y	Y	Y	N
3-May-10	15:15:00	D	Y	Y	Y	N
3-May-10	15:17:20	D	Y	Y	Y	N
3-May-10	15:19:40	D	Y	Y	Y	N
3-May-10	15:22:00	D	Y	Y	Y	N
3-May-10	15:24:20	D	Y	Y	Y	N
3-May-10	16:35:40	D	Y	Y	Y	N
3-May-10	16:38:00	D	Y	Y	Y	N
3-May-10	16:40:20	D	Y	Y	Y	N
3-May-10	16:42:40	D	Y	Y	Y	N
3-May-10	16:45:00	D	Y	N	N	N
3-May-10	16:47:20	D	Y	N	N	N
3-May-10	16:49:40	D	Y	Y	Y	N
3-May-10	16:52:00	D	Y	Y	Y	N
3-May-10	16:54:20	D	Y	Y	Y	N
3-May-10	16:56:40	D	Y	Y	Y	N
3-May-10	17:55:40	D	Y	Y	Y	N
3-May-10	17:58:00	D	Y	Y	Y	N
3-May-10	18:00:20	D	Y	Y	Y	N
3-May-10	15:26:40	E	Y	Y	Y	N
3-May-10	15:29:00	E	Y	Y	Y	N
3-May-10	15:31:20	E	Y	Y	N	Y
3-May-10	15:33:40	E	Y	Y	Y	N
3-May-10	15:36:00	E	Y	Y	Y	N
3-May-10	16:59:00	E	Y	Y	Y	N
3-May-10	17:01:20	E	Y	Y	Y	N
3-May-10	17:03:40	E	Y	N	N	N
3-May-10	17:06:00	E	Y	Y	N	Y
3-May-10	17:08:20	E	Y	Y	N	Y
3-May-10	16:00:40	F	Y	N	N	N
3-May-10	16:03:00	F	Y	Y	N	Y
3-May-10	16:05:20	F	Y	Y	N	Y
3-May-10	16:07:40	F	Y	Y	N	Y
3-May-10	16:10:00	F	Y	Y	N	Y
3-May-10	17:34:00	F	Y	Y	Y	N
3-May-10	17:36:20	F	Y	N	N	N
3-May-10	17:38:40	F	Y	Y	N	Y
3-May-10	17:51:00	F	Y	Y	N	Y
3-May-10	17:53:20	F	Y	Y	N	Y
3-May-10	15:37:20	G	Y	N	N	N

3-May-10	15:39:40	G	Y	Y	N	Y
3-May-10	15:42:00	G	Y	Y	N	Y
3-May-10	15:44:20	G	Y	Y	N	Y
3-May-10	15:46:40	G	Y	Y	N	Y
3-May-10	17:10:40	G	Y	Y	Y	N
3-May-10	17:13:00	G	Y	N	N	N
3-May-10	17:15:20	G	Y	Y	N	Y
3-May-10	17:17:40	G	Y	Y	N	Y
3-May-10	17:20:00	G	Y	Y	N	Y
4-May-10	15:45:00	A	Y	N	N	N
4-May-10	15:47:50	A	Y	N	N	N
4-May-10	15:50:00	A	Y	N	N	N
4-May-10	15:52:50	A	N	N	N	N
4-May-10	15:55:00	A	Y	N	N	N
4-May-10	17:05:00	A	N	N	N	N
4-May-10	17:07:50	A	Y	N	N	N
4-May-10	17:10:00	A	N	N	N	N
4-May-10	17:12:50	A	N	N	N	N
4-May-10	17:15:00	A	N	N	N	N
4-May-10	17:57:50	A	N	N	N	N
4-May-10	16:10:00	B	Y	N	N	N
4-May-10	16:12:50	B	N	N	N	N
4-May-10	16:15:00	B	Y	N	N	N
4-May-10	16:17:50	B	N	N	N	N
4-May-10	16:20:00	B	Y	N	N	N
4-May-10	17:30:00	B	Y	Y	N	N
4-May-10	17:32:50	B	Y	N	N	N
4-May-10	17:35:00	B	N	N	N	N
4-May-10	17:37:50	B	N	N	N	N
4-May-10	17:40:00	B	N	N	N	N
4-May-10	17:55:00	B	Y	N	N	N
4-May-10	15:20:00	C	Y	Y	Y	N
4-May-10	15:22:50	C	Y	Y	Y	N
4-May-10	15:25:00	C	Y	Y	Y	N
4-May-10	15:27:50	C	Y	Y	Y	N
4-May-10	15:30:00	C	Y	N	N	N
4-May-10	16:40:00	C	N	N	N	N
4-May-10	16:42:50	C	Y	Y	N	N
4-May-10	16:45:00	C	Y	N	N	N
4-May-10	16:47:50	C	Y	N	N	N
4-May-10	16:50:00	C	Y	N	N	N
4-May-10	16:35:00	D	Y	Y	Y	N
4-May-10	16:37:50	D	Y	Y	Y	N
4-May-10	15:57:50	F	Y	Y	N	Y
4-May-10	16:00:00	F	Y	Y	Y	N
4-May-10	16:02:50	F	Y	Y	Y	N
4-May-10	16:05:00	F	Y	Y	N	Y
4-May-10	16:07:50	F	Y	Y	N	Y
4-May-10	17:17:50	F	Y	N	N	N
4-May-10	17:20:00	F	Y	Y	N	Y

4-May-10	17:22:50	F	Y	Y	Y	N
4-May-10	17:25:00	F	Y	Y	N	Y
4-May-10	17:27:50	F	N	N	N	N
4-May-10	18:00:00	F	Y	Y	Y	N
4-May-10	18:02:50	F	Y	Y	N	Y
4-May-10	16:22:50	G	Y	N	N	N
4-May-10	16:25:00	G	Y	Y	N	Y
4-May-10	16:27:50	G	Y	Y	N	Y
4-May-10	16:30:00	G	Y	Y	N	Y
4-May-10	16:32:50	G	Y	Y	Y	N
4-May-10	17:42:50	G	Y	Y	Y	N
4-May-10	17:45:00	G	Y	Y	N	Y
4-May-10	17:47:50	G	Y	N	N	N
4-May-10	17:50:00	G	Y	N	N	N
4-May-10	17:52:50	G	Y	Y	N	Y
5-May-10	16:18:00	A	Y	N	N	N
5-May-10	16:21:00	A	N	N	N	N
5-May-10	16:24:00	A	N	N	N	N
5-May-10	16:27:00	A	N	N	N	N
5-May-10	16:30:00	A	N	N	N	N
5-May-10	17:24:00	A	N	N	N	N
5-May-10	17:27:00	A	N	N	N	N
5-May-10	17:30:00	A	N	N	N	N
5-May-10	17:33:00	A	N	N	N	N
5-May-10	17:36:00	A	N	N	N	N
5-May-10	15:48:00	B	N	N	N	N
5-May-10	15:51:00	B	N	N	N	N
5-May-10	15:54:00	B	N	N	N	N
5-May-10	15:57:00	B	N	N	N	N
5-May-10	16:00:00	B	N	N	N	N
5-May-10	16:54:00	B	N	N	N	N
5-May-10	16:57:00	B	N	N	N	N
5-May-10	17:00:00	B	N	N	N	N
5-May-10	17:03:00	B	N	N	N	N
5-May-10	17:06:00	B	N	N	N	N
5-May-10	15:30:00	F	Y	N	N	N
5-May-10	15:33:00	F	Y	Y	N	Y
5-May-10	15:36:00	F	Y	Y	N	Y
5-May-10	15:39:00	F	Y	Y	Y	N
5-May-10	15:42:00	F	Y	Y	N	Y
5-May-10	15:45:00	F	Y	Y	N	Y
5-May-10	16:33:00	F	Y	Y	N	Y
5-May-10	16:36:00	F	Y	Y	N	Y
5-May-10	16:39:10	F	Y	N	N	N
5-May-10	16:42:00	F	Y	Y	Y	N
5-May-10	16:45:00	F	Y	Y	N	Y
5-May-10	16:48:00	F	Y	Y	Y	N
5-May-10	16:51:00	F	Y	Y	N	Y
5-May-10	17:39:00	F	Y	Y	N	Y
5-May-10	17:42:00	F	Y	Y	Y	N

5-May-10	17:45:00	F	Y	Y	Y	N
5-May-10	16:03:00	G	Y	N	N	N
5-May-10	16:06:00	G	Y	Y	N	Y
5-May-10	16:09:00	G	Y	N	N	N
5-May-10	16:12:00	G	Y	Y	N	Y
5-May-10	16:15:00	G	Y	Y	N	Y
5-May-10	17:09:00	G	Y	Y	N	Y
5-May-10	17:12:00	G	Y	Y	N	Y
5-May-10	17:15:00	G	Y	Y	N	Y
5-May-10	17:18:00	G	Y	Y	N	Y
5-May-10	17:21:00	G	Y	N	N	N
4-Jun-10	15:32:50	E	Y	Y	Y	N
4-Jun-10	15:35:00	E	Y	Y	Y	N
4-Jun-10	15:37:50	E	Y	Y	Y	N
4-Jun-10	15:40:00	E	Y	Y	Y	N
4-Jun-10	15:42:50	E	Y	Y	Y	N
4-Jun-10	16:52:50	E	Y	Y	Y	N
4-Jun-10	16:55:00	E	Y	Y	Y	N
4-Jun-10	16:57:50	E	Y	Y	Y	N
4-Jun-10	17:00:00	E	Y	Y	Y	N
4-Jun-10	17:02:50	E	Y	Y	Y	N
27-Jun-10	16:22:50	D	Y	Y	Y	N
27-Jun-10	16:25:00	D	Y	Y	Y	N
27-Jun-10	16:27:50	D	Y	Y	Y	N
27-Jun-10	16:30:00	D	Y	Y	Y	N
27-Jun-10	16:32:50	D	Y	Y	Y	N
27-Jun-10	17:35:00	D	Y	Y	Y	N
27-Jun-10	17:37:50	D	Y	N	N	N
27-Jun-10	17:40:00	D	Y	Y	Y	N
27-Jun-10	17:42:50	D	Y	Y	Y	N
27-Jun-10	17:45:00	D	Y	Y	Y	N
27-Jun-10	17:47:50	D	Y	Y	Y	N
27-Jun-10	17:50:00	D	Y	Y	Y	N
28-Jun-10	16:22:50	D	Y	Y	Y	N
28-Jun-10	16:25:00	D	Y	Y	Y	N
28-Jun-10	16:27:50	D	Y	Y	Y	N
28-Jun-10	16:30:00	D	Y	Y	Y	N
28-Jun-10	16:32:50	D	Y	Y	Y	N
28-Jun-10	17:47:50	D	Y	Y	Y	N
28-Jun-10	17:50:00	D	Y	Y	Y	N
28-Jun-10	17:52:50	D	Y	Y	Y	N
28-Jun-10	17:55:00	D	Y	Y	Y	N
29-Jun-10	16:22:50	D	Y	Y	Y	N
29-Jun-10	16:25:00	D	Y	Y	Y	N
29-Jun-10	16:27:50	D	Y	Y	Y	N
29-Jun-10	16:30:00	D	Y	Y	Y	N
29-Jun-10	16:32:50	D	Y	Y	Y	N
29-Jun-10	17:42:50	D	Y	Y	Y	N
29-Jun-10	17:45:00	D	Y	Y	Y	N
29-Jun-10	17:47:50	D	Y	Y	Y	N

29-Jun-10 17:50:00 D Y Y Y N

date	time	trt	fly	of	contact	arrest
7-May-10	16:08:00	C	Y	Y	Y	N
7-May-10	16:10:50	C	Y	N	N	N
7-May-10	16:13:00	C	Y	Y	Y	N
7-May-10	16:15:50	C	Y	Y	Y	N
7-May-10	16:18:00	C	Y	Y	Y	N
7-May-10	17:33:00	C	Y	Y	Y	N
7-May-10	17:35:50	C	Y	Y	Y	Y
7-May-10	17:38:00	C	Y	Y	Y	N
7-May-10	17:40:50	C	Y	Y	Y	N
7-May-10	17:43:00	C	Y	Y	Y	N
10-May-10	16:00:00	C	Y	Y	Y	N
10-May-10	16:03:00	C	Y	Y	Y	N
10-May-10	16:06:00	C	Y	Y	Y	N
10-May-10	16:09:00	C	Y	Y	Y	N
10-May-10	16:12:00	C	Y	Y	Y	N
10-May-10	17:29:00	C	Y	N	N	N
10-May-10	17:32:00	C	Y	Y	Y	N
10-May-10	17:35:00	C	Y	Y	Y	N
11-May-10	16:15:00	C	Y	Y	Y	N
11-May-10	16:18:30	C	Y	Y	Y	N
11-May-10	16:22:00	C	Y	Y	Y	N
11-May-10	16:25:30	C	Y	N	N	N
11-May-10	16:29:00	C	Y	Y	Y	N
12-May-10	16:50:10	C	Y	N	N	N
12-May-10	16:53:20	C	Y	Y	Y	N
12-May-10	16:56:30	C	Y	Y	Y	N
12-May-10	16:59:40	C	Y	Y	Y	N
2-Jun-10	15:45:30	C	Y	Y	Y	N
2-Jun-10	15:48:00	C	Y	Y	Y	N
2-Jun-10	15:51:30	C	Y	Y	Y	N
2-Jun-10	15:54:00	C	Y	Y	Y	N
2-Jun-10	15:56:30	C	Y	Y	Y	N
2-Jun-10	17:10:00	C	Y	N	N	N
2-Jun-10	17:12:30	C	Y	Y	Y	N
2-Jun-10	17:15:00	C	Y	Y	Y	N
2-Jun-10	17:17:30	C	Y	Y	Y	N
2-Jun-10	17:20:00	C	Y	Y	Y	N
5-Jun-10	16:20:00	C	Y	Y	Y	N
5-Jun-10	16:23:00	C	Y	Y	Y	N
5-Jun-10	16:25:00	C	Y	Y	Y	N
5-Jun-10	16:28:00	C	Y	Y	Y	N
5-Jun-10	16:31:00	C	Y	N	N	N
5-Jun-10	17:52:00	C	Y	Y	Y	N
5-Jun-10	17:55:00	C	Y	Y	Y	N
5-Jun-10	17:58:00	C	Y	Y	Y	N
5-Jun-10	18:01:00	C	Y	Y	Y	N

trt	**Pheromone (ng)**
C	100
E	2000
F	2000
G	2000
H	2000
I	2000
L	2000
M	2000
N	2000

5-Jun-10	18:04:00	C	Y	Y	Y	N
8-Jun-10	16:00:00	C	Y	Y	Y	N
8-Jun-10	16:03:00	C	Y	Y	Y	N
8-Jun-10	16:06:00	C	Y	N	N	N
8-Jun-10	16:09:00	C	Y	Y	Y	N
8-Jun-10	16:12:00	C	Y	Y	Y	N
8-Jun-10	17:09:00	C	Y	N	N	N
8-Jun-10	17:12:00	C	Y	Y	Y	N
8-Jun-10	17:15:00	C	Y	Y	Y	N
10-Jun-10	16:00:00	C	Y	Y	Y	N
10-Jun-10	16:04:20	C	Y	Y	Y	N
10-Jun-10	16:08:40	C	Y	Y	Y	N
10-Jun-10	16:13:00	C	Y	Y	Y	N
10-Jun-10	16:17:20	C	Y	Y	Y	N
7-May-10	16:55:50	E	Y	Y	Y	N
7-May-10	16:58:00	E	Y	Y	N	Y
7-May-10	17:00:50	E	Y	Y	N	Y
7-May-10	17:03:00	E	Y	Y	N	Y
7-May-10	17:05:50	E	Y	N	N	N
10-May-10	15:30:00	E	Y	Y	N	Y
10-May-10	15:33:00	E	Y	Y	N	Y
10-May-10	15:36:00	E	Y	Y	N	Y
10-May-10	15:39:00	E	Y	Y	N	Y
10-May-10	15:42:00	E	Y	Y	Y	N
10-May-10	17:05:00	E	Y	N	N	N
10-May-10	17:08:00	E	Y	Y	N	Y
10-May-10	17:11:00	E	Y	Y	Y	N
10-May-10	17:14:00	E	Y	Y	N	Y
10-May-10	17:17:00	E	Y	Y	N	Y
10-May-10	18:14:00	E	Y	N	N	N
10-May-10	18:17:00	E	Y	Y	Y	N
10-May-10	18:20:00	E	Y	N	N	N
11-May-10	17:21:30	E	Y	Y	Y	N
11-May-10	17:25:00	E	Y	Y	Y	N
11-May-10	17:28:30	E	Y	Y	N	N
11-May-10	17:32:00	E	Y	Y	N	Y
12-May-10	16:05:50	E	Y	Y	N	Y
12-May-10	16:09:00	E	Y	Y	N	Y
12-May-10	16:12:10	E	Y	Y	N	Y
12-May-10	16:15:20	E	Y	Y	N	Y
12-May-10	16:18:30	E	Y	Y	Y	N
1-Jun-10	17:15:00	E	Y	Y	N	Y
1-Jun-10	17:17:50	E	Y	Y	N	Y
1-Jun-10	17:20:00	E	Y	Y	N	Y
1-Jun-10	17:22:50	E	Y	N	N	N
2-Jun-10	15:33:00	E	Y	Y	N	Y
2-Jun-10	15:35:30	E	Y	Y	N	Y

2-Jun-10	15:38:00	E	Y	Y	N	Y
2-Jun-10	15:40:30	E	Y	Y	N	Y
2-Jun-10	15:43:00	E	Y	Y	N	Y
2-Jun-10	16:57:30	E	Y	Y	Y	N
2-Jun-10	17:00:00	E	Y	Y	N	Y
2-Jun-10	17:02:30	E	Y	Y	N	Y
2-Jun-10	17:05:00	E	Y	Y	N	Y
2-Jun-10	17:07:30	E	Y	Y	Y	N
4-Jun-10	15:20:00	E	Y	Y	Y	N
4-Jun-10	15:22:40	E	Y	Y	Y	N
4-Jun-10	15:25:20	E	Y	N	N	N
4-Jun-10	15:28:00	E	Y	N	N	N
4-Jun-10	15:30:40	E	Y	Y	N	Y
4-Jun-10	16:48:20	E	Y	Y	Y	N
4-Jun-10	16:51:00	E	N	N	N	N
4-Jun-10	16:53:40	E	Y	Y	Y	N
4-Jun-10	16:56:20	E	Y	Y	Y	N
7-Jun-10	15:53:00	E	Y	Y	N	Y
7-Jun-10	15:56:00	E	Y	Y	Y	N
7-Jun-10	15:59:00	E	Y	Y	N	Y
7-Jun-10	16:02:00	E	Y	N	N	N
7-Jun-10	16:05:00	E	Y	Y	Y	N
9-Jun-10	17:11:40	E	Y	Y	N	Y
9-Jun-10	17:15:00	E	Y	Y	N	Y
9-Jun-10	17:18:20	E	Y	Y	N	Y
9-Jun-10	17:21:40	E	Y	Y	N	Y
9-Jun-10	17:25:00	E	Y	Y	N	Y
7-May-10	16:33:00	F	Y	Y	N	Y
7-May-10	16:13:50	F	Y	Y	N	Y
7-May-10	16:36:09	F	Y	Y	N	Y
7-May-10	16:38:00	F	Y	Y	N	Y
7-May-10	16:40:50	F	Y	N	N	N
7-May-10	17:58:00	F	Y	Y	Y	N
7-May-10	18:00:50	F	Y	Y	N	Y
7-May-10	18:03:00	F	Y	Y	N	Y
7-May-10	18:05:50	F	Y	Y	Y	N
7-May-10	18:08:00	F	Y	N	N	N
10-May-10	16:20:00	F	Y	Y	Y	N
10-May-10	16:23:00	F	Y	N	N	N
10-May-10	16:26:00	F	Y	Y	N	Y
10-May-10	16:29:00	F	Y	Y	Y	N
10-May-10	16:32:00	F	Y	Y	Y	N
10-May-10	17:47:00	F	Y	Y	N	Y
10-May-10	17:50:00	F	Y	Y	N	Y
10-May-10	17:53:00	F	Y	N	N	N
11-May-10	16:32:30	F	Y	Y	Y	N
11-May-10	16:36:00	F	Y	Y	N	Y

11-May-10	16:39:30	F	Y	N	N	N
11-May-10	16:43:00	F	Y	Y	N	Y
11-May-10	16:46:30	F	Y	N	N	N
12-May-10	17:15:30	F	Y	Y	N	Y
12-May-10	17:18:40	F	Y	Y	N	Y
12-May-10	17:21:50	F	Y	Y	N	Y
12-May-10	17:25:00	F	Y	Y	N	Y
12-May-10	17:28:10	F	Y	Y	N	Y
3-Jun-10	15:28:20	F	Y	Y	Y	N
3-Jun-10	15:31:00	F	Y	Y	N	Y
3-Jun-10	15:33:40	F	Y	Y	Y	N
3-Jun-10	15:36:20	F	Y	Y	Y	N
3-Jun-10	15:39:00	F	Y	Y	Y	N
3-Jun-10	16:53:40	F	Y	N	N	N
3-Jun-10	16:56:20	F	Y	Y	N	Y
3-Jun-10	16:59:00	F	Y	Y	Y	N
3-Jun-10	17:01:40	F	Y	N	N	N
3-Jun-10	17:04:20	F	Y	N	N	N
5-Jun-10	15:47:00	F	Y	Y	N	Y
5-Jun-10	15:50:00	F	Y	Y	N	N
5-Jun-10	15:53:00	F	Y	Y	Y	N
5-Jun-10	15:56:00	F	Y	Y	N	Y
5-Jun-10	15:59:00	F	Y	Y	Y	N
5-Jun-10	17:22:00	F	Y	Y	N	Y
5-Jun-10	17:25:00	F	Y	Y	N	Y
5-Jun-10	17:28:00	F	Y	Y	Y	N
5-Jun-10	17:31:00	F	Y	N	N	N
5-Jun-10	17:34:00	F	Y	Y	Y	N
8-Jun-10	15:30:00	F	Y	Y	Y	N
8-Jun-10	15:33:00	F	Y	Y	N	Y
8-Jun-10	15:36:00	F	Y	Y	Y	N
8-Jun-10	15:39:00	F	Y	Y	N	Y
8-Jun-10	15:42:00	F	Y	Y	N	Y
8-Jun-10	16:57:00	F	Y	Y	N	Y
8-Jun-10	17:00:00	F	Y	N	N	N
10-Jun-10	16:21:40	F	Y	Y	N	Y
10-Jun-10	16:26:00	F	Y	Y	Y	N
10-Jun-10	16:30:20	F	Y	N	N	N
10-Jun-10	16:34:40	F	Y	Y	N	Y
10-Jun-10	16:39:00	F	Y	Y	N	Y
1-Jun-10	16:25:00	G	Y	N	N	N
1-Jun-10	16:27:50	G	Y	Y	N	Y
1-Jun-10	16:30:00	G	Y	Y	N	Y
1-Jun-10	16:32:50	G	Y	Y	N	Y
1-Jun-10	17:35:00	G	Y	Y	N	Y
1-Jun-10	17:37:50	G	Y	Y	N	Y
1-Jun-10	17:40:00	G	Y	N	N	N

1-Jun-10	17:42:50	G	Y	Y	N	Y
2-Jun-10	16:15:00	G	Y	Y	N	Y
2-Jun-10	16:17:30	G	Y	Y	N	Y
2-Jun-10	16:20:00	G	Y	Y	N	Y
2-Jun-10	16:22:30	G	Y	Y	N	Y
2-Jun-10	16:25:00	G	Y	Y	N	Y
2-Jun-10	16:27:30	G	Y	Y	N	Y
2-Jun-10	17:04:00	G	Y	N	N	N
2-Jun-10	17:45:00	G	Y	N	N	N
2-Jun-10	17:47:30	G	Y	Y	Y	N
2-Jun-10	17:50:00	G	Y	Y	Y	N
2-Jun-10	17:52:30	G	Y	Y	Y	N
2-Jun-10	17:55:00	G	Y	Y	Y	N
2-Jun-10	17:57:30	G	Y	N	N	N
2-Jun-10	18:00:00	G	Y	N	N	N
2-Jun-10	18:02:30	G	Y	Y	Y	N
5-Jun-10	15:15:00	G	Y	Y	N	Y
5-Jun-10	15:18:00	G	Y	Y	Y	N
5-Jun-10	15:21:00	G	Y	N	N	N
5-Jun-10	15:24:00	G	Y	Y	N	Y
5-Jun-10	15:27:00	G	Y	Y	N	Y
5-Jun-10	15:30:00	G	Y	Y	Y	N
5-Jun-10	16:52:00	G	Y	Y	N	Y
5-Jun-10	16:55:00	G	Y	Y	Y	N
5-Jun-10	16:58:00	G	Y	Y	N	Y
5-Jun-10	17:01:00	G	Y	Y	Y	N
5-Jun-10	17:04:00	G	Y	Y	Y	N
5-Jun-10	17:07:00	G	Y	Y	Y	N
7-Jun-10	16:08:00	G	Y	N	N	N
7-Jun-10	16:11:00	G	Y	Y	N	Y
7-Jun-10	16:14:00	G	Y	Y	N	Y
7-Jun-10	16:17:00	G	Y	Y	N	Y
7-Jun-10	16:20:00	G	Y	Y	N	Y
7-Jun-10	16:23:00	G	Y	Y	Y	N
7-Jun-10	17:23:00	G	Y	Y	N	Y
7-Jun-10	17:26:00	G	Y	Y	N	Y
7-Jun-10	17:29:00	G	Y	Y	N	Y
7-Jun-10	17:32:00	G	Y	Y	N	Y
7-Jun-10	17:35:00	G	Y	Y	N	Y
7-Jun-10	17:38:00	G	Y	Y	Y	N
7-Jun-10	17:41:00	G	Y	Y	Y	N
9-Jun-10	15:15:00	G	Y	Y	Y	N
9-Jun-10	15:18:20	G	Y	Y	N	Y
9-Jun-10	15:21:40	G	Y	Y	N	Y
9-Jun-10	15:25:00	G	Y	Y	N	Y
9-Jun-10	15:28:20	G	Y	Y	N	Y
9-Jun-10	15:31:40	G	Y	Y	Y	N

9-Jun-10	17:28:20	G	Y	Y	Y	N
9-Jun-10	17:31:40	G	Y	Y	N	Y
9-Jun-10	17:35:00	G	Y	Y	N	Y
9-Jun-10	17:38:20	G	Y	Y	N	Y
9-Jun-10	17:41:40	G	Y	Y	N	Y
9-Jun-10	17:45:00	G	Y	Y	N	Y
1-Jun-10	16:45:00	H	Y	Y	N	Y
1-Jun-10	16:47:50	H	Y	Y	N	Y
1-Jun-10	16:50:00	H	Y	Y	N	Y
1-Jun-10	16:52:50	H	Y	Y	N	Y
1-Jun-10	17:55:00	H	Y	N	N	N
1-Jun-10	17:57:50	H	Y	Y	N	Y
1-Jun-10	18:00:00	H	Y	Y	N	Y
1-Jun-10	18:02:50	H	Y	Y	N	Y
2-Jun-10	16:30:00	H	Y	Y	N	Y
2-Jun-10	16:32:30	H	Y	Y	N	Y
2-Jun-10	16:35:00	H	Y	Y	Y	N
2-Jun-10	16:37:30	H	Y	Y	N	Y
2-Jun-10	16:40:00	H	Y	Y	N	Y
2-Jun-10	16:42:30	H	Y	Y	Y	N
2-Jun-10	18:05:00	H	Y	Y	N	Y
2-Jun-10	18:07:30	H	Y	Y	Y	N
2-Jun-10	18:10:00	H	Y	Y	N	Y
2-Jun-10	18:12:30	H	Y	Y	Y	N
2-Jun-10	18:15:00	H	Y	Y	Y	N
2-Jun-10	18:17:30	H	Y	Y	Y	N
2-Jun-10	18:20:00	H	Y	Y	Y	N
2-Jun-10	18:22:30	H	Y	N	N	N
2-Jun-10	18:25:00	H	Y	Y	N	Y
4-Jun-10	15:16:20	H	Y	Y	N	Y
4-Jun-10	16:19:00	H	Y	Y	N	Y
4-Jun-10	16:21:40	H	Y	N	N	N
4-Jun-10	16:24:20	H	Y	N	N	N
4-Jun-10	16:27:00	H	Y	Y	Y	N
4-Jun-10	16:29:40	H	Y	N	N	N
4-Jun-10	17:44:20	H	Y	N	N	N
4-Jun-10	17:47:00	H	Y	N	N	N
4-Jun-10	17:49:40	H	Y	Y	N	Y
4-Jun-10	17:52:20	H	Y	Y	N	Y
4-Jun-10	17:55:00	H	Y	Y	Y	N
4-Jun-10	17:57:40	H	Y	N	N	N
7-Jun-10	16:23:00	H	Y	Y	N	Y
7-Jun-10	16:26:00	H	Y	N	N	N
7-Jun-10	16:29:00	H	Y	N	N	N
7-Jun-10	16:32:00	H	Y	Y	N	Y
7-Jun-10	16:35:00	H	Y	N	N	N
7-Jun-10	16:38:00	H	Y	Y	Y	N

7-Jun-10	17:44:00	H	Y	Y	N	Y
7-Jun-10	17:47:00	H	Y	Y	N	Y
7-Jun-10	17:50:00	H	Y	N	N	N
7-Jun-10	17:53:00	H	Y	Y	Y	N
7-Jun-10	17:56:00	H	Y	N	N	N
7-Jun-10	17:59:00	H	Y	Y	Y	N
7-Jun-10	18:02:00	H	Y	N	N	N
9-Jun-10	15:35:00	H	Y	Y	Y	N
9-Jun-10	15:38:20	H	Y	N	N	N
9-Jun-10	15:41:40	H	Y	Y	N	Y
9-Jun-10	15:45:00	H	Y	Y	Y	N
9-Jun-10	15:48:20	H	Y	Y	N	Y
9-Jun-10	15:51:40	H	Y	Y	N	Y
9-Jun-10	17:48:20	H	Y	N	N	N
9-Jun-10	17:51:40	H	Y	Y	N	N
9-Jun-10	17:55:00	H	Y	Y	N	Y
9-Jun-10	17:58:20	H	Y	Y	N	Y
9-Jun-10	18:01:40	H	Y	Y	N	Y
9-Jun-10	18:05:00	H	Y	Y	N	Y
7-May-10	15:55:50	I	Y	Y	N	Y
7-May-10	15:58:00	I	Y	Y	N	Y
7-May-10	16:00:50	I	Y	Y	Y	N
7-May-10	16:03:00	I	Y	Y	N	Y
7-May-10	16:05:50	I	Y	Y	N	Y
7-May-10	17:20:50	I	Y	Y	N	Y
7-May-10	17:23:00	I	Y	Y	Y	N
7-May-10	17:25:50	I	Y	Y	N	Y
7-May-10	17:28:00	I	Y	Y	N	Y
7-May-10	17:30:50	I	Y	Y	N	Y
10-May-10	16:35:00	I	Y	N	N	N
10-May-10	16:38:00	I	Y	Y	Y	N
10-May-10	16:41:00	I	Y	Y	N	Y
10-May-10	16:44:00	I	Y	Y	N	Y
10-May-10	16:47:00	I	Y	Y	N	Y
10-May-10	17:56:00	I	Y	Y	N	Y
10-May-10	17:59:00	I	Y	N	N	N
10-May-10	18:02:00	I	Y	N	N	N
3-Jun-10	15:55:00	I	Y	Y	N	Y
3-Jun-10	15:57:40	I	Y	Y	N	Y
3-Jun-10	16:00:20	I	Y	Y	N	Y
3-Jun-10	16:03:00	I	Y	Y	Y	N
3-Jun-10	16:05:40	I	Y	N	N	N
3-Jun-10	17:21:00	I	Y	Y	N	Y
3-Jun-10	17:23:40	I	Y	N	N	N
3-Jun-10	17:26:20	I	Y	N	N	N
3-Jun-10	17:29:00	I	Y	Y	N	Y
3-Jun-10	17:31:40	I	Y	Y	Y	N

4-Jun-10	15:33:20	I	Y	Y	N	Y
4-Jun-10	15:36:00	I	Y	Y	N	Y
4-Jun-10	15:38:40	I	Y	N	N	N
4-Jun-10	15:41:20	I	Y	Y	N	Y
4-Jun-10	15:44:00	I	Y	Y	N	Y
4-Jun-10	16:59:00	I	Y	Y	N	N
4-Jun-10	17:01:40	I	Y	Y	N	Y
4-Jun-10	17:04:20	I	Y	Y	N	Y
4-Jun-10	17:07:00	I	Y	Y	N	Y
4-Jun-10	17:09:40	I	Y	Y	Y	N
8-Jun-10	15:45:00	I	Y	Y	N	Y
8-Jun-10	15:48:00	I	Y	Y	N	N
8-Jun-10	15:51:00	I	Y	Y	N	Y
8-Jun-10	15:54:00	I	Y	Y	N	Y
8-Jun-10	15:57:00	I	Y	Y	N	Y
8-Jun-10	17:03:00	I	Y	Y	Y	N
8-Jun-10	17:06:00	I	Y	Y	N	Y
10-Jun-10	16:43:20	I	Y	Y	N	Y
10-Jun-10	16:47:40	I	Y	Y	N	Y
10-Jun-10	16:52:00	I	Y	Y	Y	N
10-Jun-10	16:56:20	I	Y	Y	N	Y
10-Jun-10	17:00:40	I	Y	Y	N	Y
11-Jun-10	15:57:30	I	Y	Y	Y	N
11-Jun-10	16:01:00	I	Y	Y	Y	N
11-Jun-10	16:04:30	I	Y	N	N	N
11-Jun-10	16:08:00	I	Y	N	N	N
11-Jun-10	16:11:30	I	Y	Y	Y	N
12-Jun-10	16:34:20	I	Y	Y	N	Y
12-Jun-10	16:37:30	I	Y	Y	N	Y
12-Jun-10	16:40:40	I	Y	Y	N	Y
12-Jun-10	16:43:50	I	Y	Y	N	Y
12-Jun-10	16:47:00	I	Y	N	N	N
1-Jun-10	16:15:00	L	Y	Y	N	Y
1-Jun-10	16:17:50	L	Y	Y	N	Y
1-Jun-10	16:20:00	L	Y	Y	N	Y
1-Jun-10	16:22:50	L	Y	N	N	N
1-Jun-10	17:25:00	L	Y	Y	N	Y
1-Jun-10	17:27:50	L	Y	Y	N	Y
1-Jun-10	17:30:00	L	Y	N	N	N
1-Jun-10	17:32:50	L	Y	Y	N	Y
3-Jun-10	16:08:20	L	Y	Y	N	Y
3-Jun-10	16:11:00	L	Y	Y	N	Y
3-Jun-10	16:13:40	L	Y	N	N	N
3-Jun-10	16:16:20	L	Y	Y	Y	N
3-Jun-10	16:19:00	L	Y	Y	Y	N
3-Jun-10	16:21:40	L	Y	Y	N	N
3-Jun-10	17:34:20	L	Y	N	N	N

3-Jun-10	17:37:00	L	N	N	N	N
3-Jun-10	17:39:40	L	N	N	N	N
3-Jun-10	17:42:20	L	Y	Y	N	Y
3-Jun-10	17:45:00	L	Y	Y	Y	N
3-Jun-10	17:47:40	L	Y	Y	N	Y
3-Jun-10	17:50:20	L	Y	Y	N	Y
3-Jun-10	17:53:00	L	Y	Y	Y	N
3-Jun-10	17:55:40	L	Y	Y	Y	N
3-Jun-10	17:58:20	L	Y	Y	Y	N
3-Jun-10	18:01:00	L	Y	Y	N	Y
4-Jun-10	16:00:00	L	Y	Y	N	Y
4-Jun-10	16:02:40	L	Y	N	N	N
4-Jun-10	16:05:20	L	Y	N	N	N
4-Jun-10	16:08:00	L	Y	Y	N	Y
4-Jun-10	16:11:00	L	Y	Y	N	Y
4-Jun-10	16:13:40	L	Y	Y	N	Y
4-Jun-10	17:28:20	L	Y	Y	N	Y
4-Jun-10	17:31:00	L	Y	Y	Y	N
4-Jun-10	17:33:40	L	Y	Y	Y	N
4-Jun-10	17:36:20	L	Y	Y	N	Y
4-Jun-10	17:39:00	L	Y	N	N	N
4-Jun-10	17:41:40	L	Y	N	N	N
8-Jun-10	16:15:00	L	Y	N	N	N
8-Jun-10	16:18:00	L	Y	Y	N	Y
8-Jun-10	16:21:00	L	Y	Y	Y	N
8-Jun-10	16:24:00	L	Y	N	N	N
8-Jun-10	16:27:00	L	Y	Y	Y	N
8-Jun-10	16:30:00	L	Y	N	N	N
8-Jun-10	17:18:00	L	Y	N	N	N
8-Jun-10	17:21:00	L	Y	Y	Y	N
8-Jun-10	17:24:00	L	Y	Y	N	Y
8-Jun-10	17:27:00	L	Y	N	N	N
8-Jun-10	17:30:00	L	Y	Y	N	Y
8-Jun-10	17:33:00	L	Y	Y	Y	N
8-Jun-10	17:36:00	L	Y	Y	N	Y
8-Jun-10	17:39:00	L	Y	Y	Y	N
8-Jun-10	17:42:00	L	Y	N	N	N
8-Jun-10	18:11:00	L	Y	N	N	N
8-Jun-10	18:14:00	L	Y	Y	Y	N
8-Jun-10	18:17:00	L	Y	Y	N	Y
10-Jun-10	17:05:00	L	Y	Y	Y	N
10-Jun-10	17:09:20	L	Y	Y	N	Y
10-Jun-10	17:13:40	L	Y	Y	N	Y
10-Jun-10	17:18:00	L	Y	N	N	N
10-Jun-10	17:22:20	L	Y	N	Y	N
1-Jun-10	16:35:00	M	Y	N	N	N
1-Jun-10	16:37:50	M	Y	Y	N	Y

1-Jun-10	16:40:00	M	Y	Y	N	Y
1-Jun-10	16:42:50	M	Y	Y	N	Y
1-Jun-10	17:45:00	M	Y	Y	N	Y
1-Jun-10	17:47:50	M	Y	Y	N	Y
1-Jun-10	17:50:00	M	Y	Y	N	Y
1-Jun-10	17:52:50	M	Y	N	N	N
2-Jun-10	16:00:00	M	Y	Y	N	Y
2-Jun-10	16:02:30	M	Y	Y	N	Y
2-Jun-10	16:05:00	M	Y	Y	N	Y
2-Jun-10	16:07:30	M	Y	Y	N	Y
2-Jun-10	16:10:00	M	Y	Y	N	Y
2-Jun-10	16:12:30	M	Y	Y	N	Y
2-Jun-10	17:22:30	M	Y	Y	N	Y
2-Jun-10	17:25:00	M	Y	N	N	N
2-Jun-10	17:27:30	M	Y	Y	N	Y
2-Jun-10	17:30:00	M	Y	Y	Y	N
2-Jun-10	17:32:30	M	Y	Y	N	Y
2-Jun-10	17:35:00	M	Y	Y	Y	N
2-Jun-10	17:37:30	M	Y	N	N	N
2-Jun-10	17:40:00	M	Y	Y	N	Y
2-Jun-10	17:42:30	M	Y	N	N	N
5-Jun-10	16:34:00	M	Y	Y	N	Y
5-Jun-10	16:37:00	M	Y	Y	N	Y
5-Jun-10	16:40:00	M	Y	Y	Y	N
5-Jun-10	16:43:00	M	Y	Y	Y	N
5-Jun-10	16:46:00	M	Y	N	N	N
5-Jun-10	16:49:00	M	Y	Y	Y	N
5-Jun-10	18:07:00	M	Y	Y	Y	N
5-Jun-10	18:10:00	M	Y	Y	N	Y
5-Jun-10	18:13:00	M	Y	N	N	N
5-Jun-10	18:16:00	M	Y	Y	Y	N
5-Jun-10	18:19:00	M	Y	N	N	N
5-Jun-10	18:22:00	M	Y	Y	Y	N
5-Jun-10	18:25:00	M	Y	Y	Y	N
5-Jun-10	18:28:00	M	Y	N	N	N
7-Jun-10	15:20:00	M	Y	Y	N	Y
7-Jun-10	15:23:00	M	Y	N	N	N
7-Jun-10	15:26:00	M	Y	Y	N	Y
7-Jun-10	15:29:00	M	Y	Y	Y	NA
7-Jun-10	15:32:00	M	Y	Y	N	Y
7-Jun-10	15:35:00	M	Y	Y	Y	Y
7-Jun-10	16:56:00	M	Y	Y	N	Y
7-Jun-10	16:59:00	M	Y	N	N	N
7-Jun-10	17:02:00	M	Y	Y	N	Y
7-Jun-10	17:05:00	M	Y	N	N	N
7-Jun-10	17:08:00	M	Y	Y	N	Y
7-Jun-10	17:11:00	M	Y	Y	Y	N

7-Jun-10	17:14:00	M	Y	Y	Y	N
9-Jun-10	15:55:00	M	Y	N	N	N
9-Jun-10	15:58:20	M	Y	N	N	N
9-Jun-10	16:01:40	M	Y	Y	N	Y
9-Jun-10	16:05:00	M	Y	Y	N	Y
9-Jun-10	16:08:20	M	Y	Y	Y	N
9-Jun-10	18:08:20	M	Y	Y	N	Y
9-Jun-10	18:11:40	M	Y	Y	N	Y
9-Jun-10	18:15:00	M	Y	Y	N	Y
9-Jun-10	18:18:20	M	Y	Y	N	Y
9-Jun-10	18:21:40	M	Y	Y	N	Y
7-May-10	16:43:00	N	Y	Y	N	Y
7-May-10	16:45:50	N	Y	Y	N	Y
7-May-10	16:48:50	N	Y	Y	N	Y
7-May-10	16:50:50	N	Y	Y	N	Y
7-May-10	16:53:00	N	Y	Y	N	Y
10-May-10	15:15:00	N	Y	Y	Y	N
10-May-10	15:18:00	N	Y	Y	N	Y
10-May-10	15:21:00	N	Y	N	N	N
10-May-10	15:24:00	N	Y	Y	N	Y
10-May-10	15:27:00	N	Y	Y	N	Y
10-May-10	16:50:00	N	Y	N	N	N
10-May-10	16:53:00	N	Y	Y	N	Y
10-May-10	16:56:00	N	Y	Y	N	Y
10-May-10	16:59:00	N	Y	Y	N	Y
10-May-10	17:02:00	N	N	N	N	N
10-May-10	18:05:00	N	Y	Y	N	Y
10-May-10	18:08:00	N	Y	Y	N	Y
10-May-10	18:11:00	N	Y	Y	Y	N
11-May-10	16:50:00	N	Y	N	N	N
11-May-10	16:53:30	N	N	N	N	N
11-May-10	16:57:00	N	Y	Y	N	Y
11-May-10	17:00:30	N	Y	Y	N	Y
11-May-10	17:04:00	N	Y	Y	N	Y
12-May-10	17:02:50	N	Y	Y	N	Y
12-May-10	17:06:00	N	Y	Y	N	Y
12-May-10	17:09:10	N	N	N	N	N
12-May-10	17:12:20	N	Y	N	N	N
2-Jun-10	15:20:00	N	Y	N	N	N
2-Jun-10	15:25:00	N	Y	Y	N	Y
2-Jun-10	15:27:30	N	Y	Y	N	Y
2-Jun-10	15:28:00	N	Y	Y	N	Y
2-Jun-10	15:30:30	N	Y	Y	N	Y
2-Jun-10	16:45:00	N	Y	Y	N	Y
2-Jun-10	16:47:30	N	Y	Y	N	Y
2-Jun-10	16:50:00	N	Y	Y	N	Y
2-Jun-10	16:52:30	N	Y	Y	Y	N

2-Jun-10	16:55:00	N	Y	Y	Y	N
4-Jun-10	15:46:40	N	Y	N	N	N
4-Jun-10	15:49:20	N	Y	N	N	N
4-Jun-10	15:54:40	N	Y	Y	N	Y
4-Jun-10	15:57:20	N	Y	Y	Y	N
4-Jun-10	17:12:20	N	Y	N	N	N
4-Jun-10	17:15:00	N	Y	N	N	N
4-Jun-10	17:17:40	N	Y	Y	N	Y
4-Jun-10	17:20:20	N	Y	N	N	N
4-Jun-10	17:23:00	N	Y	Y	N	Y
4-Jun-10	17:25:40	N	Y	Y	Y	N
7-Jun-10	16:41:00	N	Y	N	N	N
7-Jun-10	16:44:00	N	Y	N	N	N
7-Jun-10	16:47:00	N	Y	Y	N	Y
7-Jun-10	16:50:00	N	Y	Y	N	Y
7-Jun-10	16:53:00	N	Y	Y	N	Y
7-Jun-10	18:05:00	N	Y	N	N	N
7-Jun-10	18:08:00	N	Y	N	N	N
9-Jun-10	16:55:00	N	Y	N	N	N
9-Jun-10	16:58:20	N	N	N	N	N
9-Jun-10	17:01:40	N	Y	N	N	N
9-Jun-10	17:05:00	N	Y	Y	N	Y
9-Jun-10	17:08:20	N	Y	Y	N	Y
4-Jun-10	15:52:00	N	Y	N	N	N

Plant (ng)	ratio
0	
0	1:0
0.2	1:0.0001
2	1:0.001
20	1:0.01
200	1:0.1
2000	1:1
20000	1:10
200000	1:100

date	time	trt	fly	of	contact	fly.t	of.t	contact.t
8/28/2013	11:36	a0	yes	no	no	2	NA	NA
9/6/2013	9:47	a0	yes	yes	yes	2	5	21
7/16/2013	10:40	a0	yes	no	no	4	NA	NA
8/28/2013	9:52	a0	yes	no	no	4	NA	NA
7/18/2013	10:45	a0	yes	yes	yes	5	47	54
8/14/2013	10:24	a0	yes	yes	yes	5	10	15
7/26/2013	9:35	a0	yes	yes	yes	7	10	19
7/18/2013	9:34	a0	yes	no	no	9	NA	NA
7/13/2013	11:34	a0	yes	no	no	10	NA	NA
8/26/2013	11:34	a0	yes	yes	no	10	18	NA
7/26/2013	12:02	a0	yes	no	no	11	NA	NA
7/13/2013	11:28	a0	yes	yes	yes	12	20	24
8/26/2013	9:47	a0	yes	no	no	12	NA	NA
8/28/2013	9:57	a0	yes	yes	yes	12	35	45
7/13/2013	11:30	a0	yes	yes	yes	13	15	21
7/16/2013	9:36	a0	yes	yes	yes	13	14	19
7/13/2013	10:01	a0	yes	yes	yes	17	22	29
8/14/2013	10:25	a0	yes	yes	yes	17	55	67
9/6/2013	9:48	a0	yes	no	no	20	NA	NA
8/14/2013	11:31	a0	yes	no	no	21	NA	NA
7/16/2013	9:30	a0	yes	yes	yes	23	25	38
7/13/2013	9:57	a0	yes	yes	yes	24	50	64
7/13/2013	10:02	a0	yes	yes	yes	24	29	34
7/26/2013	9:32	a0	yes	no	no	24	NA	NA
8/28/2013	9:51	a0	yes	yes	yes	24	32	40
7/16/2013	10:47	a0	yes	no	no	25	NA	NA
9/2/2013	11:20	a0	yes	yes	yes	25	28	34
9/6/2013	9:43	a0	yes	yes	yes	25	40	46
8/26/2013	9:46	a0	yes	yes	yes	28	39	55
7/15/2013	11:22	a0	yes	yes	yes	31	48	86
8/14/2013	10:22	a0	yes	yes	yes	31	33	43
9/2/2013	9:39	a0	yes	no	no	32	NA	NA
9/6/2013	11:17	a0	yes	no	no	32	NA	NA
7/16/2013	9:31	a0	yes	no	no	33	NA	NA
7/13/2013	9:58	a0	yes	no	no	34	NA	NA
7/8/2013	11:49	a0	yes	no	no	35	NA	NA
7/26/2013	9:37	a0	yes	no	no	35	NA	NA
8/14/2013	11:29	a0	yes	yes	yes	35	71	81
7/18/2013	10:47	a0	yes	no	no	39	NA	NA
8/14/2013	11:27	a0	yes	no	no	39	NA	NA
7/16/2013	10:42	a0	yes	no	no	41	NA	NA
7/18/2013	9:42	a0	yes	no	no	41	NA	NA
8/26/2013	11:32	a0	yes	yes	yes	42	50	59
7/26/2013	9:36	a0	yes	yes	yes	46	49	60
9/2/2013	9:41	a0	yes	no	no	46	NA	NA
9/2/2013	11:25	a0	yes	no	no	46	NA	NA
7/18/2013	9:37	a0	yes	yes	yes	47	48	55
7/26/2013	12:04	a0	yes	no	no	48	NA	NA
7/18/2013	10:52	a0	yes	no	no	49	NA	NA

7/13/2013	11:30	a0	yes	yes	yes	50	51	59
7/13/2013	10:03	a0	yes	yes	no	54	58	NA
8/14/2013	11:25	a0	yes	no	no	60	NA	NA
7/8/2013	11:42	a0	yes	no	no	63	NA	NA
7/15/2013	10:15	a0	yes	yes	yes	63	89	104
7/15/2013	11:19	a0	yes	no	no	65	NA	NA
7/26/2013	12:07	a0	yes	yes	yes	66	67	75
7/15/2013	10:18	a0	yes	yes	yes	75	77	82
7/18/2013	10:50	a0	yes	no	no	79	NA	NA
9/2/2013	11:20	a0	yes	no	no	80	NA	NA
7/15/2013	10:08	a0	yes	yes	yes	84	85	99
7/8/2013	10:47	a0	yes	no	no	85	NA	NA
9/2/2013	9:34	a0	yes	yes	yes	85	113	120
9/6/2013	9:51	a0	yes	yes	yes	88	95	101
9/6/2013	11:19	a0	yes	no	no	93	NA	NA
9/2/2013	9:36	a0	yes	no	no	114	NA	NA
7/26/2013	12:09	a0	yes	no	no	115	NA	NA
7/16/2013	9:37	a0	yes	no	no	117	NA	NA
7/15/2013	11:17	a0	yes	no	no	118	NA	NA
7/8/2013	10:40	a0	no	no	no	NA	NA	NA
7/8/2013	10:42	a0	no	no	no	NA	NA	NA
7/8/2013	10:45	a0	no	no	no	NA	NA	NA
7/8/2013	10:50	a0	no	no	no	NA	NA	NA
7/8/2013	11:44	a0	no	no	no	NA	NA	NA
7/8/2013	11:46	a0	no	no	no	NA	NA	NA
7/13/2013	11:32	a0	no	no	no	NA	NA	NA
7/15/2013	10:11	a0	no	no	no	NA	NA	NA
7/15/2013	10:13	a0	no	no	no	NA	NA	NA
7/15/2013	11:24	a0	no	no	no	NA	NA	NA
7/16/2013	9:34	a0	no	no	no	NA	NA	NA
7/16/2013	10:44	a0	no	no	no	NA	NA	NA
7/18/2013	9:32	a0	no	no	no	NA	NA	NA
7/18/2013	9:40	a0	no	no	no	NA	NA	NA
7/26/2013	9:30	a0	no	no	no	NA	NA	NA
8/14/2013	10:02	a0	no	no	no	NA	NA	NA
8/14/2013	10:29	a0	no	no	no	NA	NA	NA
8/26/2013	9:41	a0	no	no	no	NA	NA	NA
8/26/2013	9:43	a0	no	no	no	NA	NA	NA
8/26/2013	9:49	a0	no	no	no	NA	NA	NA
8/26/2013	11:30	a0	no	no	no	NA	NA	NA
8/26/2013	11:36	a0	no	no	no	NA	NA	NA
8/28/2013	9:49	a0	no	no	no	NA	NA	NA
8/28/2013	9:55	a0	no	no	no	NA	NA	NA
8/28/2013	11:38	a0	no	no	no	NA	NA	NA
8/28/2013	11:41	a0	no	no	no	NA	NA	NA
8/28/2013	11:43	a0	no	no	no	NA	NA	NA
9/2/2013	9:32	a0	no	no	no	NA	NA	NA
9/2/2013	11:23	a0	no	no	no	NA	NA	NA
9/6/2013	9:45	a0	no	no	no	NA	NA	NA
9/6/2013	11:21	a0	no	no	no	NA	NA	NA

9/6/2013	11:23	a0	no	no	no	NA	NA	NA
7/12/2013	9:51	a1	yes	yes	yes	1	2	10
8/27/2013	10:27	a1	yes	yes	yes	1	20	32
7/28/2013	11:20	a1	yes	no	no	2	NA	NA
8/27/2013	11:01	a1	yes	yes	yes	2	15	20
9/11/2013	11:00	a1	yes	no	no	2	NA	NA
7/19/2013	9:56	a1	yes	no	no	3	NA	NA
7/19/2013	10:00	a1	yes	yes	yes	5	6	18
8/27/2013	10:53	a1	yes	no	no	10	NA	NA
8/27/2013	10:56	a1	yes	yes	yes	11	100	113
7/19/2013	11:02	a1	yes	yes	yes	13	15	21
8/22/2013	11:32	a1	yes	yes	yes	14	15	21
8/11/2013	10:23	a1	yes	yes	yes	15	17	25
7/19/2013	9:53	a1	yes	no	no	18	NA	NA
9/6/2013	11:31	a1	yes	yes	yes	18	25	34
9/11/2013	9:32	a1	yes	no	no	19	NA	NA
8/27/2013	10:24	a1	yes	no	no	20	NA	NA
8/22/2013	9:38	a1	yes	no	no	21	NA	NA
7/8/2013	11:01	a1	yes	no	no	23	NA	NA
7/12/2013	9:49	a1	yes	yes	yes	23	25	39
9/11/2013	10:55	a1	yes	no	no	24	NA	NA
7/8/2013	9:43	a1	yes	yes	yes	25	28	35
8/27/2013	10:30	a1	yes	yes	yes	28	30	41
8/22/2013	9:30	a1	yes	yes	yes	30	33	42
8/27/2013	10:27	a1	yes	no	no	30	NA	NA
7/15/2013	10:29	a1	yes	yes	yes	31	43	67
8/11/2013	11:31	a1	yes	no	no	33	NA	NA
7/17/2013	11:27	a1	yes	no	no	34	NA	NA
7/15/2013	11:33	a1	yes	no	no	35	NA	NA
7/17/2013	11:32	a1	yes	yes	yes	35	41	55
7/19/2013	11:04	a1	yes	no	no	35	NA	NA
7/12/2013	10:56	a1	yes	no	no	37	NA	NA
7/8/2013	10:54	a1	yes	no	no	39	NA	NA
8/11/2013	10:19	a1	yes	yes	yes	39	40	48
7/8/2013	10:56	a1	yes	yes	yes	43	65	77
7/17/2013	10:32	a1	yes	no	no	45	NA	NA
7/19/2013	11:00	a1	yes	no	no	45	NA	NA
7/8/2013	10:58	a1	yes	no	no	49	NA	NA
7/8/2013	9:37	a1	yes	yes	yes	50	63	68
8/22/2013	11:36	a1	yes	no	no	50	NA	NA
7/12/2013	9:52	a1	yes	no	no	51	NA	NA
7/15/2013	10:31	a1	yes	no	no	51	NA	NA
8/22/2013	11:38	a1	yes	no	no	53	NA	NA
7/15/2013	11:27	a1	yes	no	no	55	NA	NA
8/22/2013	9:36	a1	yes	yes	yes	55	56	65
7/15/2013	11:31	a1	yes	no	no	58	NA	NA
7/17/2013	10:27	a1	yes	no	no	58	NA	NA
8/27/2013	10:58	a1	yes	no	no	59	NA	NA
7/19/2013	11:06	a1	yes	no	no	60	NA	NA
9/11/2013	9:35	a1	yes	yes	yes	62	88	92

9/11/2013	10:58	a1	yes	yes	yes	68	79	85
8/22/2013	9:34	a1	yes	no	no	75	NA	NA
7/12/2013	9:46	a1	yes	no	no	77	NA	NA
7/12/2013	10:59	a1	yes	no	no	77	NA	NA
7/19/2013	9:58	a1	yes	yes	yes	78	78	83
7/12/2013	10:54	a1	yes	no	no	79	NA	NA
7/15/2013	10:24	a1	yes	no	no	92	NA	NA
7/15/2013	11:29	a1	yes	no	no	99	NA	NA
9/6/2013	10:40	a1	yes	yes	yes	100	101	111
9/6/2013	10:47	a1	yes	no	no	102	NA	NA
9/6/2013	11:26	a1	yes	no	no	102	NA	NA
7/15/2013	10:21	a1	yes	yes	yes	103	105	108
8/22/2013	9:31	a1	yes	no	no	106	NA	NA
9/11/2013	9:28	a1	yes	yes	yes	108	109	118
7/12/2013	9:43	a1	yes	yes	yes	110	111	117
7/28/2013	9:35	a1	yes	no	no	119	NA	NA
7/8/2013	9:40	a1	no	no	no	NA	NA	NA
7/8/2013	9:45	a1	no	no	no	NA	NA	NA
7/8/2013	9:47	a1	no	no	no	NA	NA	NA
7/12/2013	11:01	a1	no	no	no	NA	NA	NA
7/15/2013	10:27	a1	no	no	no	NA	NA	NA
7/17/2013	10:23	a1	no	no	no	NA	NA	NA
7/17/2013	10:25	a1	no	no	no	NA	NA	NA
7/17/2013	10:30	a1	no	no	no	NA	NA	NA
7/17/2013	11:30	a1	no	no	no	NA	NA	NA
7/17/2013	11:35	a1	no	no	no	NA	NA	NA
7/19/2013	10:01	a1	no	no	no	NA	NA	NA
7/28/2013	9:30	a1	no	no	no	NA	NA	NA
7/28/2013	9:33	a1	no	no	no	NA	NA	NA
7/28/2013	9:38	a1	no	no	no	NA	NA	NA
7/28/2013	9:40	a1	no	no	no	NA	NA	NA
7/28/2013	11:16	a1	no	no	no	NA	NA	NA
7/28/2013	11:18	a1	no	no	no	NA	NA	NA
7/28/2013	11:22	a1	no	no	no	NA	NA	NA
8/11/2013	10:15	a1	no	no	no	NA	NA	NA
8/11/2013	10:17	a1	no	no	no	NA	NA	NA
8/11/2013	10:21	a1	no	no	no	NA	NA	NA
8/11/2013	11:27	a1	no	no	no	NA	NA	NA
8/11/2013	11:29	a1	no	no	no	NA	NA	NA
8/11/2013	11:33	a1	no	no	no	NA	NA	NA
8/22/2013	11:34	a1	no	no	no	NA	NA	NA
8/27/2013	10:22	a1	no	no	no	NA	NA	NA
9/6/2013	10:38	a1	no	no	no	NA	NA	NA
9/6/2013	10:42	a1	no	no	no	NA	NA	NA
9/6/2013	10:45	a1	no	no	no	NA	NA	NA
9/6/2013	11:29	a1	no	no	no	NA	NA	NA
9/6/2013	11:33	a1	no	no	no	NA	NA	NA
9/11/2013	9:30	a1	no	no	no	NA	NA	NA
9/11/2013	9:37	a1	no	no	no	NA	NA	NA
9/11/2013	10:57	a1	no	no	no	NA	NA	NA

7/9/2013	11:36	a2	yes	no	no	3	NA	NA
7/12/2013	11:28	a2	yes	no	no	3	NA	NA
8/8/2013	11:03	a2	yes	yes	yes	4	5	13
7/15/2013	9:58	a2	yes	yes	yes	5	13	37
7/15/2013	9:55	a2	yes	no	no	7	NA	NA
7/15/2013	11:13	a2	yes	no	no	9	NA	NA
9/4/2013	10:51	a2	yes	yes	yes	9	12	19
8/23/2013	10:00	a2	yes	yes	yes	13	19	27
8/23/2013	10:38	a2	yes	yes	no	14	28	NA
7/18/2013	11:23	a2	yes	no	no	15	NA	NA
9/10/2013	10:53	a2	yes	yes	yes	15	71	81
9/4/2013	9:58	a2	yes	no	no	16	NA	NA
7/18/2013	10:25	a2	yes	yes	yes	17	23	52
8/8/2013	10:01	a2	yes	yes	yes	18	18	24
7/9/2013	10:28	a2	yes	no	no	19	NA	NA
7/9/2013	11:31	a2	yes	no	no	19	NA	NA
9/10/2013	10:20	a2	yes	yes	yes	23	24	27
8/23/2013	9:52	a2	yes	no	no	24	NA	NA
7/12/2013	11:30	a2	yes	no	no	25	NA	NA
7/15/2013	9:59	a2	yes	yes	yes	25	103	117
7/12/2013	10:34	a2	yes	no	no	27	NA	NA
7/17/2013	11:12	a2	yes	no	no	28	NA	NA
7/15/2013	10:03	a2	yes	yes	yes	29	31	47
9/5/2013	9:55	a2	yes	yes	yes	30	108	119
8/23/2013	10:44	a2	yes	no	no	32	NA	NA
8/23/2013	9:54	a2	yes	yes	yes	33	37	48
7/17/2013	10:05	a2	yes	no	no	34	NA	NA
7/9/2013	10:35	a2	yes	no	no	35	NA	NA
7/17/2013	11:07	a2	yes	no	no	35	NA	NA
7/28/2013	10:05	a2	yes	yes	yes	37	38	45
8/8/2013	9:58	a2	yes	yes	yes	37	40	45
7/9/2013	10:26	a2	yes	yes	no	39	40	NA
9/10/2013	10:48	a2	yes	yes	yes	39	100	111
9/4/2013	10:01	a2	yes	yes	yes	40	42	55
7/17/2013	11:09	a2	yes	yes	yes	41	45	59
7/28/2013	11:31	a2	yes	no	no	41	NA	NA
7/18/2013	10:22	a2	yes	no	no	42	NA	NA
8/23/2013	9:57	a2	yes	yes	yes	44	110	119
9/4/2013	10:47	a2	yes	yes	yes	45	46	50
9/10/2013	10:13	a2	yes	yes	yes	45	68	120
8/23/2013	10:40	a2	yes	yes	yes	46	48	57
9/4/2013	10:04	a2	yes	yes	yes	46	48	62
9/5/2013	9:57	a2	yes	no	no	47	NA	NA
7/12/2013	10:39	a2	yes	no	no	50	NA	NA
7/17/2013	10:03	a2	yes	no	no	50	NA	NA
7/18/2013	11:30	a2	yes	yes	yes	54	55	83
7/17/2013	11:14	a2	yes	no	no	55	NA	NA
8/23/2013	9:56	a2	yes	yes	yes	56	58	68
9/10/2013	10:15	a2	yes	yes	yes	59	111	120
7/12/2013	11:33	a2	yes	no	no	60	NA	NA

7/18/2013	11:27	a2	yes	yes	yes	61	64	72
7/18/2013	10:27	a2	yes	no	no	65	NA	NA
7/28/2013	10:02	a2	yes	no	no	66	NA	NA
9/4/2013	10:52	a2	yes	yes	yes	68	69	73
9/10/2013	10:55	a2	yes	no	no	69	NA	NA
7/15/2013	11:06	a2	yes	yes	yes	71	86	93
8/23/2013	10:41	a2	yes	no	no	71	NA	NA
9/4/2013	10:06	a2	yes	no	no	72	NA	NA
7/17/2013	10:10	a2	yes	yes	yes	73	78	95
7/15/2013	11:11	a2	yes	no	no	76	NA	NA
9/4/2013	10:02	a2	yes	yes	yes	76	78	85
9/10/2013	10:21	a2	yes	no	no	82	NA	NA
7/9/2013	10:30	a2	yes	no	no	83	NA	NA
7/12/2013	10:31	a2	yes	yes	yes	83	84	93
9/5/2013	10:00	a2	yes	yes	yes	84	86	110
9/10/2013	10:51	a2	yes	no	no	86	NA	NA
7/15/2013	11:09	a2	yes	yes	yes	87	91	106
7/17/2013	10:07	a2	yes	no	no	87	NA	NA
7/18/2013	10:20	a2	yes	yes	yes	87	90	109
7/18/2013	10:29	a2	yes	no	no	95	NA	NA
7/12/2013	10:36	a2	yes	no	no	101	NA	NA
7/12/2013	10:41	a2	yes	no	no	105	NA	NA
7/9/2013	10:33	a2	yes	no	no	117	NA	NA
7/9/2013	11:34	a2	no	no	no	NA	NA	NA
7/9/2013	11:39	a2	no	no	no	NA	NA	NA
7/12/2013	11:36	a2	no	no	no	NA	NA	NA
7/15/2013	10:04	a2	no	no	no	NA	NA	NA
7/17/2013	10:00	a2	no	no	no	NA	NA	NA
7/18/2013	11:25	a2	no	no	no	NA	NA	NA
7/28/2013	9:58	a2	no	no	no	NA	NA	NA
7/28/2013	10:00	a2	no	no	no	NA	NA	NA
7/28/2013	10:07	a2	no	no	no	NA	NA	NA
7/28/2013	11:25	a2	no	no	no	NA	NA	NA
7/28/2013	11:27	a2	no	no	no	NA	NA	NA
7/28/2013	11:29	a2	no	no	no	NA	NA	NA
8/8/2013	9:56	a2	no	no	no	NA	NA	NA
8/8/2013	10:00	a2	no	no	no	NA	NA	NA
8/8/2013	10:03	a2	no	no	no	NA	NA	NA
8/8/2013	11:03	a2	no	no	no	NA	NA	NA
8/8/2013	11:05	a2	no	no	no	NA	NA	NA
8/8/2013	11:07	a2	no	no	no	NA	NA	NA
9/4/2013	10:49	a2	no	no	no	NA	NA	NA
9/5/2013	9:54	a2	no	no	no	NA	NA	NA
9/5/2013	10:02	a2	no	no	no	NA	NA	NA
9/10/2013	10:17	a2	no	no	no	NA	NA	NA
7/9/2013	11:26	a3	yes	no	no	1	NA	NA
9/5/2013	11:07	a3	yes	no	no	2	NA	NA
8/29/2013	10:28	a3	yes	no	no	3	NA	NA
9/12/2013	11:30	a3	yes	yes	yes	5	11	16
7/26/2013	10:45	a3	yes	no	no	6	NA	NA

8/29/2013	11:05	a3	yes	yes	yes	9	12	21
9/9/2013	10:02	a3	yes	yes	yes	9	21	31
7/15/2013	10:48	a3	yes	yes	yes	11	61	72
9/3/2013	11:11	a3	yes	yes	yes	12	20	27
7/13/2013	10:10	a3	yes	yes	yes	16	21	30
7/13/2013	10:12	a3	yes	yes	yes	17	20	22
7/19/2013	10:04	a3	yes	no	no	17	NA	NA
9/3/2013	11:17	a3	yes	yes	yes	17	18	23
7/16/2013	10:14	a3	yes	yes	yes	18	22	62
7/13/2013	10:45	a3	yes	no	no	19	NA	NA
7/16/2013	10:12	a3	yes	no	no	21	NA	NA
9/3/2013	10:13	a3	yes	no	no	22	NA	NA
7/15/2013	10:53	a3	yes	yes	yes	23	24	30
8/14/2013	10:18	a3	yes	yes	yes	24	30	34
7/9/2013	11:28	a3	yes	no	no	25	NA	NA
7/15/2013	10:54	a3	yes	yes	yes	25	50	65
7/16/2013	11:17	a3	yes	yes	yes	25	28	42
9/3/2013	10:11	a3	yes	yes	yes	26	27	44
7/16/2013	10:07	a3	yes	yes	no	28	28	NA
7/13/2013	10:13	a3	yes	yes	yes	29	31	40
7/9/2013	10:22	a3	yes	no	no	30	NA	NA
7/16/2013	10:09	a3	yes	no	no	30	NA	NA
7/9/2013	10:15	a3	yes	yes	yes	31	32	44
7/13/2013	10:08	a3	yes	no	no	32	NA	NA
9/3/2013	11:14	a3	yes	no	no	34	NA	NA
7/15/2013	11:52	a3	yes	yes	yes	35	39	48
7/26/2013	10:13	a3	yes	no	no	35	NA	NA
9/12/2013	10:30	a3	yes	yes	yes	35	38	60
7/13/2013	10:47	a3	yes	yes	yes	36	38	69
7/13/2013	10:06	a3	yes	yes	yes	37	42	92
7/19/2013	11:15	a3	yes	no	no	37	NA	NA
7/26/2013	10:16	a3	yes	no	no	37	NA	NA
7/15/2013	10:47	a3	yes	yes	yes	38	39	45
7/15/2013	11:47	a3	yes	no	no	39	NA	NA
8/14/2013	11:21	a3	yes	no	no	39	NA	NA
9/9/2013	10:00	a3	yes	no	no	39	NA	NA
9/12/2013	11:28	a3	yes	no	no	39	NA	NA
7/19/2013	10:13	a3	yes	no	no	40	NA	NA
7/26/2013	10:48	a3	yes	no	no	40	NA	NA
8/14/2013	11:17	a3	yes	yes	yes	41	45	58
7/26/2013	10:43	a3	yes	no	no	42	NA	NA
9/3/2013	10:08	a3	yes	no	no	43	NA	NA
7/19/2013	11:13	a3	yes	yes	yes	47	49	88
9/12/2013	11:31	a3	yes	yes	yes	47	48	53
7/9/2013	11:24	a3	yes	no	no	50	NA	NA
7/19/2013	10:06	a3	yes	no	no	50	NA	NA
7/13/2013	10:39	a3	yes	no	no	54	NA	NA
9/9/2013	10:44	a3	yes	no	no	55	NA	NA
7/26/2013	10:10	a3	yes	no	no	58	NA	NA
7/9/2013	11:22	a3	yes	no	no	60	NA	NA

9/12/2013	10:32	a3	yes	yes	yes	60	62	71
9/9/2013	9:55	a3	yes	no	no	61	NA	NA
7/9/2013	10:17	a3	yes	yes	yes	62	63	74
7/9/2013	10:19	a3	yes	no	no	63	NA	NA
7/13/2013	10:42	a3	yes	no	no	63	NA	NA
7/16/2013	11:14	a3	yes	no	no	64	NA	NA
7/19/2013	11:09	a3	yes	no	no	65	NA	NA
8/29/2013	10:31	a3	yes	yes	yes	69	70	79
7/15/2013	11:45	a3	yes	no	no	75	NA	NA
7/26/2013	10:07	a3	yes	yes	yes	76	78	85
9/9/2013	9:58	a3	yes	yes	yes	79	82	90
9/5/2013	11:09	a3	yes	yes	yes	81	85	91
7/26/2013	10:40	a3	yes	no	no	82	NA	NA
7/16/2013	11:18	a3	yes	yes	yes	85	87	96
8/14/2013	10:16	a3	yes	no	no	85	NA	NA
7/15/2013	10:51	a3	yes	no	no	89	NA	NA
9/9/2013	9:53	a3	yes	no	no	89	NA	NA
7/19/2013	10:11	a3	yes	no	no	90	NA	NA
9/12/2013	10:23	a3	yes	yes	yes	90	93	104
9/3/2013	10:06	a3	yes	yes	yes	95	105	115
9/12/2013	11:33	a3	yes	yes	yes	95	101	106
8/29/2013	11:08	a3	yes	no	no	96	NA	NA
8/14/2013	11:19	a3	yes	yes	yes	97	103	115
7/13/2013	10:49	a3	yes	no	no	99	NA	NA
9/9/2013	10:41	a3	yes	yes	yes	99	102	110
7/19/2013	11:11	a3	yes	no	no	103	NA	NA
8/14/2013	11:15	a3	yes	yes	yes	103	105	113
8/29/2013	10:26	a3	yes	no	no	108	NA	NA
7/16/2013	11:11	a3	yes	no	no	111	NA	NA
9/9/2013	10:48	a3	yes	no	no	116	NA	NA
7/9/2013	10:13	a3	no	no	no	NA	NA	NA
7/15/2013	11:49	a3	no	no	no	NA	NA	NA
7/16/2013	10:04	a3	no	no	no	NA	NA	NA
7/19/2013	10:09	a3	no	no	no	NA	NA	NA
7/26/2013	10:05	a3	no	no	no	NA	NA	NA
8/14/2013	10:12	a3	no	no	no	NA	NA	NA
8/14/2013	10:14	a3	no	no	no	NA	NA	NA
8/14/2013	10:19	a3	no	no	no	NA	NA	NA
8/29/2013	10:24	a3	no	no	no	NA	NA	NA
8/29/2013	10:33	a3	no	no	no	NA	NA	NA
8/29/2013	11:06	a3	no	no	no	NA	NA	NA
8/29/2013	11:11	a3	no	no	no	NA	NA	NA
9/3/2013	10:04	a3	no	no	no	NA	NA	NA
9/3/2013	11:12	a3	no	no	no	NA	NA	NA
9/5/2013	11:05	a3	no	no	no	NA	NA	NA
9/5/2013	11:12	a3	no	no	no	NA	NA	NA
9/9/2013	10:46	a3	no	no	no	NA	NA	NA
9/12/2013	10:25	a3	no	no	no	NA	NA	NA
9/12/2013	10:28	a3	no	no	no	NA	NA	NA
8/20/2013	10:13	b0	yes	no	no	2	NA	NA

8/11/2013	9:40	b0	yes	yes	yes	3	5	11
8/16/2013	9:58	b0	yes	no	no	3	NA	NA
8/23/2013	11:27	b0	yes	yes	yes	3	52	67
8/13/2013	10:02	b0	yes	no	no	4	NA	NA
8/28/2013	10:38	b0	yes	yes	yes	8	55	68
8/15/2013	10:26	b0	yes	no	no	9	NA	NA
9/2/2013	10:23	b0	yes	no	no	9	NA	NA
9/10/2013	10:41	b0	yes	no	no	9	NA	NA
9/9/2013	9:45	b0	yes	yes	yes	18	22	29
8/20/2013	11:22	b0	yes	yes	yes	23	26	31
9/10/2013	10:43	b0	yes	yes	yes	23	69	82
8/8/2013	10:47	b0	yes	no	no	24	NA	NA
8/23/2013	10:31	b0	yes	yes	yes	24	27	31
9/2/2013	11:33	b0	yes	yes	yes	24	31	45
8/16/2013	9:56	b0	yes	yes	no	31	37	NA
9/10/2013	11:33	b0	yes	no	no	32	NA	NA
8/23/2013	10:26	b0	yes	yes	yes	35	85	99
9/10/2013	10:45	b0	yes	yes	yes	44	48	55
8/20/2013	10:10	b0	yes	no	no	46	NA	NA
8/15/2013	11:33	b0	yes	no	no	47	NA	NA
9/2/2013	10:17	b0	yes	no	no	47	NA	NA
8/28/2013	10:55	b0	yes	no	no	48	NA	NA
9/2/2013	10:19	b0	yes	yes	yes	48	55	66
8/28/2013	10:34	b0	yes	no	no	50	NA	NA
8/23/2013	11:25	b0	yes	no	no	63	NA	NA
8/23/2013	11:31	b0	yes	yes	yes	66	75	85
9/2/2013	10:21	b0	yes	no	no	66	NA	NA
8/8/2013	9:35	b0	yes	no	no	68	NA	NA
8/8/2013	9:43	b0	yes	no	no	68	NA	NA
8/13/2013	11:14	b0	yes	yes	yes	69	70	101
8/16/2013	9:52	b0	yes	no	no	77	NA	NA
9/9/2013	9:50	b0	yes	yes	yes	82	99	108
8/23/2013	10:32	b0	yes	no	no	84	NA	NA
8/11/2013	9:34	b0	yes	yes	yes	88	91	100
9/2/2013	11:34	b0	yes	no	no	91	NA	NA
8/20/2013	10:06	b0	yes	no	no	92	NA	NA
8/16/2013	9:54	b0	yes	no	no	93	NA	NA
8/23/2013	10:29	b0	yes	no	no	95	NA	NA
9/2/2013	11:28	b0	yes	no	no	97	NA	NA
8/28/2013	10:59	b0	yes	yes	no	99	118	NA
8/28/2013	10:42	b0	yes	yes	yes	103	108	119
8/28/2013	11:00	b0	yes	yes	yes	105	107	119
9/9/2013	9:48	b0	yes	no	no	105	NA	NA
9/9/2013	11:31	b0	yes	no	no	105	NA	NA
8/20/2013	10:03	b0	yes	no	no	115	NA	NA
9/9/2013	11:35	b0	yes	no	no	119	NA	NA
8/8/2013	9:37	b0	no	no	no	NA	NA	NA
8/8/2013	9:39	b0	no	no	no	NA	NA	NA
8/8/2013	9:41	b0	no	no	no	NA	NA	NA
8/8/2013	10:45	b0	no	no	no	NA	NA	NA

8/8/2013	10:49	b0	no	no	no	NA	NA	NA
8/8/2013	10:51	b0	no	no	no	NA	NA	NA
8/11/2013	9:32	b0	no	no	no	NA	NA	NA
8/11/2013	9:36	b0	no	no	no	NA	NA	NA
8/11/2013	9:38	b0	no	no	no	NA	NA	NA
8/11/2013	10:50	b0	no	no	no	NA	NA	NA
8/11/2013	10:52	b0	no	no	no	NA	NA	NA
8/11/2013	10:54	b0	no	no	no	NA	NA	NA
8/11/2013	10:56	b0	no	no	no	NA	NA	NA
8/13/2013	9:53	b0	no	no	no	NA	NA	NA
8/13/2013	9:55	b0	no	no	no	NA	NA	NA
8/13/2013	9:58	b0	no	no	no	NA	NA	NA
8/13/2013	10:00	b0	no	no	no	NA	NA	NA
8/13/2013	11:10	b0	no	no	no	NA	NA	NA
8/13/2013	11:12	b0	no	no	no	NA	NA	NA
8/13/2013	11:16	b0	no	no	no	NA	NA	NA
8/15/2013	10:18	b0	no	no	no	NA	NA	NA
8/15/2013	10:20	b0	no	no	no	NA	NA	NA
8/15/2013	10:22	b0	no	no	no	NA	NA	NA
8/15/2013	10:24	b0	no	no	no	NA	NA	NA
8/15/2013	11:29	b0	no	no	no	NA	NA	NA
8/15/2013	11:31	b0	no	no	no	NA	NA	NA
8/15/2013	11:36	b0	no	no	no	NA	NA	NA
8/16/2013	10:00	b0	no	no	no	NA	NA	NA
8/16/2013	11:05	b0	no	no	no	NA	NA	NA
8/16/2013	11:07	b0	no	no	no	NA	NA	NA
8/16/2013	11:09	b0	no	no	no	NA	NA	NA
8/16/2013	11:11	b0	no	no	no	NA	NA	NA
8/16/2013	10:36	b0	no	no	no	NA	NA	NA
8/16/2013	10:38	b0	no	no	no	NA	NA	NA
8/16/2013	10:40	b0	no	no	no	NA	NA	NA
8/16/2013	10:42	b0	no	no	no	NA	NA	NA
8/16/2013	10:44	b0	no	no	no	NA	NA	NA
8/20/2013	10:08	b0	no	no	no	NA	NA	NA
8/20/2013	11:15	b0	no	no	no	NA	NA	NA
8/20/2013	11:17	b0	no	no	no	NA	NA	NA
8/20/2013	11:20	b0	no	no	no	NA	NA	NA
8/23/2013	10:35	b0	no	no	no	NA	NA	NA
8/23/2013	11:28	b0	no	no	no	NA	NA	NA
8/28/2013	10:36	b0	no	no	no	NA	NA	NA
8/28/2013	10:40	b0	no	no	no	NA	NA	NA
8/28/2013	10:57	b0	no	no	no	NA	NA	NA
9/2/2013	10:26	b0	no	no	no	NA	NA	NA
9/2/2013	11:30	b0	no	no	no	NA	NA	NA
9/9/2013	9:43	b0	no	no	no	NA	NA	NA
9/9/2013	9:46	b0	no	no	no	NA	NA	NA
9/9/2013	11:33	b0	no	no	no	NA	NA	NA
9/9/2013	11:38	b0	no	no	no	NA	NA	NA
9/10/2013	10:37	b0	no	no	no	NA	NA	NA
9/10/2013	10:39	b0	no	no	no	NA	NA	NA

9/10/2013	11:27	b0	no	no	no	NA	NA	NA
9/10/2013	11:31	b0	no	no	no	NA	NA	NA
9/10/2013	11:35	b0	no	no	no	NA	NA	NA
9/3/2013	9:56	b1	yes	yes	yes	1	88	99
8/13/2013	10:35	b1	yes	no	no	4	NA	NA
8/8/2013	11:00	b1	yes	no	no	9	NA	NA
8/12/2013	9:33	b1	yes	yes	yes	11	14	29
8/16/2013	10:11	b1	yes	yes	yes	15	15	23
8/8/2013	9:50	b1	yes	yes	yes	16	16	20
8/12/2013	10:46	b1	yes	yes	yes	18	21	28
8/26/2013	10:13	b1	yes	yes	yes	19	23	39
8/12/2013	9:37	b1	yes	yes	yes	23	31	38
8/26/2013	10:06	b1	yes	no	no	23	NA	NA
9/5/2013	9:52	b1	yes	yes	yes	23	35	44
8/8/2013	9:53	b1	yes	no	no	24	NA	NA
8/29/2013	9:41	b1	yes	yes	yes	25	27	31
8/26/2013	10:08	b1	yes	yes	yes	26	40	53
9/3/2013	10:45	b1	yes	yes	yes	27	37	49
9/3/2013	9:52	b1	yes	no	no	28	NA	NA
9/5/2013	9:43	b1	yes	yes	yes	28	32	39
9/5/2013	9:49	b1	yes	yes	yes	30	37	45
9/3/2013	10:00	b1	yes	no	no	33	NA	NA
9/5/2013	9:47	b1	yes	no	no	39	NA	NA
8/16/2013	11:18	b1	yes	no	no	44	NA	NA
8/8/2013	10:56	b1	yes	no	no	45	NA	NA
9/3/2013	9:58	b1	yes	no	no	45	NA	NA
9/3/2013	10:39	b1	yes	no	no	46	NA	NA
8/20/2013	10:49	b1	yes	no	no	48	NA	NA
9/5/2013	11:17	b1	yes	yes	yes	50	76	85
9/5/2013	11:21	b1	yes	no	no	50	NA	NA
8/29/2013	9:45	b1	yes	yes	yes	52	58	67
8/29/2013	11:21	b1	yes	yes	yes	54	56	68
8/12/2013	9:38	b1	yes	no	no	55	NA	NA
8/16/2013	10:05	b1	yes	no	no	57	NA	NA
8/16/2013	11:14	b1	yes	no	no	59	NA	NA
8/29/2013	11:16	b1	yes	yes	no	59	60	NA
8/13/2013	11:40	b1	yes	no	no	60	NA	NA
8/12/2013	10:47	b1	yes	no	no	67	NA	NA
9/3/2013	9:54	b1	yes	yes	yes	69	74	86
8/20/2013	11:31	b1	yes	no	no	72	NA	NA
8/13/2013	11:44	b1	yes	no	no	73	NA	NA
8/15/2013	11:39	b1	yes	no	no	73	NA	NA
8/20/2013	10:45	b1	yes	yes	yes	74	78	94
8/15/2013	10:33	b1	yes	no	no	75	NA	NA
8/26/2013	10:15	b1	yes	no	no	76	NA	NA
8/26/2013	11:11	b1	yes	no	no	76	NA	NA
9/12/2013	10:42	b1	yes	yes	yes	76	89	95
8/20/2013	11:35	b1	yes	no	no	78	NA	NA
8/29/2013	9:47	b1	yes	yes	no	79	83	NA
9/12/2013	10:40	b1	yes	no	no	81	NA	NA

8/29/2013	9:39	b1	yes	no	no	82	NA	NA
8/12/2013	10:44	b1	yes	no	no	84	NA	NA
8/8/2013	10:54	b1	yes	no	no	90	NA	NA
8/29/2013	11:14	b1	yes	no	no	93	NA	NA
9/3/2013	10:46	b1	yes	no	no	94	NA	NA
9/12/2013	11:10	b1	yes	no	no	100	NA	NA
9/12/2013	11:12	b1	yes	yes	yes	105	106	113
8/12/2013	9:40	b1	yes	yes	yes	106	107	116
8/26/2013	11:16	b1	yes	yes	yes	106	107	115
9/5/2013	11:14	b1	yes	no	no	110	NA	NA
8/8/2013	9:46	b1	yes	no	no	113	NA	NA
9/5/2013	9:46	b1	yes	no	no	113	NA	NA
8/16/2013	11:21	b1	yes	no	no	117	NA	NA
9/3/2013	10:42	b1	yes	no	no	119	NA	NA
9/12/2013	10:35	b1	yes	no	no	120	NA	NA
8/8/2013	9:48	b1	no	no	no	NA	NA	NA
8/8/2013	9:51	b1	no	no	no	NA	NA	NA
8/8/2013	10:58	b1	no	no	no	NA	NA	NA
8/12/2013	9:35	b1	no	no	no	NA	NA	NA
8/12/2013	10:49	b1	no	no	no	NA	NA	NA
8/13/2013	10:29	b1	no	no	no	NA	NA	NA
8/13/2013	10:31	b1	no	no	no	NA	NA	NA
8/13/2013	10:33	b1	no	no	no	NA	NA	NA
8/13/2013	10:38	b1	no	no	no	NA	NA	NA
8/13/2013	11:38	b1	no	no	no	NA	NA	NA
8/13/2013	11:42	b1	no	no	no	NA	NA	NA
8/15/2013	10:29	b1	no	no	no	NA	NA	NA
8/15/2013	10:31	b1	no	no	no	NA	NA	NA
8/15/2013	10:35	b1	no	no	no	NA	NA	NA
8/15/2013	10:38	b1	no	no	no	NA	NA	NA
8/15/2013	11:41	b1	no	no	no	NA	NA	NA
8/15/2013	11:43	b1	no	no	no	NA	NA	NA
8/15/2013	11:45	b1	no	no	no	NA	NA	NA
8/16/2013	10:03	b1	no	no	no	NA	NA	NA
8/16/2013	10:07	b1	no	no	no	NA	NA	NA
8/16/2013	10:09	b1	no	no	no	NA	NA	NA
8/16/2013	11:16	b1	no	no	no	NA	NA	NA
8/20/2013	10:42	b1	no	no	no	NA	NA	NA
8/20/2013	10:47	b1	no	no	no	NA	NA	NA
8/20/2013	10:52	b1	no	no	no	NA	NA	NA
8/20/2013	11:33	b1	no	no	no	NA	NA	NA
8/20/2013	11:38	b1	no	no	no	NA	NA	NA
8/26/2013	10:10	b1	no	no	no	NA	NA	NA
8/26/2013	11:13	b1	no	no	no	NA	NA	NA
8/26/2013	11:18	b1	no	no	no	NA	NA	NA
8/29/2013	9:43	b1	no	no	no	NA	NA	NA
8/29/2013	11:19	b1	no	no	no	NA	NA	NA
9/5/2013	11:19	b1	no	no	no	NA	NA	NA
9/12/2013	10:37	b1	no	no	no	NA	NA	NA
9/12/2013	10:44	b1	no	no	no	NA	NA	NA

9/12/2013	11:07	b1	no	no	no	NA	NA	NA
9/12/2013	11:14	b1	no	no	no	NA	NA	NA
8/29/2013	10:01	b2	yes	no	no	2	NA	NA
9/3/2013	11:04	b2	yes	no	no	2	NA	NA
9/6/2013	10:06	b2	yes	yes	no	2	15	NA
8/14/2013	9:57	b2	yes	no	no	3	NA	NA
8/16/2013	11:28	b2	yes	no	no	3	NA	NA
9/3/2013	11:06	b2	yes	no	no	3	NA	NA
8/14/2013	9:56	b2	yes	yes	yes	5	8	17
8/14/2013	10:01	b2	yes	yes	yes	7	10	16
9/9/2013	11:03	b2	yes	no	no	9	NA	NA
8/14/2013	11:04	b2	yes	no	no	10	NA	NA
8/19/2013	10:35	b2	yes	yes	yes	17	28	40
8/19/2013	11:23	b2	yes	no	no	17	NA	NA
9/3/2013	10:16	b2	yes	no	no	19	NA	NA
8/29/2013	10:48	b2	yes	no	no	21	NA	NA
8/6/2013	9:46	b2	yes	yes	yes	22	23	30
9/6/2013	10:54	b2	yes	yes	yes	24	27	37
8/14/2013	10:58	b2	yes	yes	yes	26	109	115
8/19/2013	10:36	b2	yes	no	no	26	NA	NA
9/6/2013	10:50	b2	yes	yes	yes	27	35	42
8/14/2013	11:02	b2	yes	yes	yes	29	29	37
8/16/2013	10:20	b2	yes	no	no	29	NA	NA
8/29/2013	10:03	b2	yes	yes	yes	30	42	53
9/3/2013	10:23	b2	yes	yes	yes	30	31	41
8/16/2013	11:26	b2	yes	yes	yes	32	34	49
8/6/2013	9:42	b2	yes	yes	yes	34	36	39
9/3/2013	10:24	b2	yes	yes	yes	34	72	83
8/29/2013	10:05	b2	yes	yes	yes	37	38	50
9/3/2013	10:18	b2	yes	yes	yes	44	67	80
9/9/2013	10:21	b2	yes	no	no	49	NA	NA
8/26/2013	10:43	b2	yes	yes	yes	50	63	78
8/20/2013	10:00	b2	yes	no	no	55	NA	NA
8/26/2013	10:18	b2	yes	yes	yes	55	87	99
8/19/2013	11:27	b2	yes	no	no	57	NA	NA
9/9/2013	11:07	b2	yes	no	no	58	NA	NA
9/9/2013	10:17	b2	yes	yes	yes	59	72	79
8/19/2013	10:33	b2	yes	no	no	61	NA	NA
8/29/2013	10:53	b2	yes	yes	yes	62	67	79
8/29/2013	10:46	b2	yes	yes	yes	63	66	78
9/6/2013	10:00	b2	yes	no	no	63	NA	NA
9/3/2013	10:21	b2	yes	no	no	66	NA	NA
8/6/2013	10:56	b2	yes	no	no	67	NA	NA
8/16/2013	11:30	b2	yes	no	no	67	NA	NA
8/26/2013	10:45	b2	yes	yes	yes	69	75	88
8/26/2013	10:23	b2	yes	yes	yes	73	76	89
8/6/2013	10:58	b2	yes	no	no	77	NA	NA
8/16/2013	10:15	b2	yes	no	no	81	NA	NA
8/19/2013	11:20	b2	yes	no	no	81	NA	NA
8/26/2013	10:47	b2	yes	yes	yes	81	86	93

8/16/2013	11:24	b2	yes	no	no	83	NA	NA
8/26/2013	10:25	b2	yes	no	no	85	NA	NA
8/26/2013	10:20	b2	yes	no	no	88	NA	NA
9/9/2013	10:26	b2	yes	yes	yes	89	92	99
8/20/2013	9:55	b2	yes	no	no	90	NA	NA
8/29/2013	10:06	b2	yes	yes	yes	91	96	102
9/6/2013	10:03	b2	yes	yes	yes	92	100	107
8/26/2013	10:49	b2	yes	no	no	94	NA	NA
9/3/2013	11:08	b2	yes	yes	yes	95	99	110
8/6/2013	10:53	b2	yes	no	no	97	NA	NA
9/6/2013	10:09	b2	yes	yes	yes	97	100	106
8/29/2013	10:09	b2	yes	no	no	105	NA	NA
8/29/2013	10:50	b2	yes	no	no	105	NA	NA
9/9/2013	11:05	b2	yes	yes	yes	105	106	113
8/6/2013	9:43	b2	yes	no	no	111	NA	NA
9/9/2013	10:19	b2	yes	no	no	111	NA	NA
8/19/2013	11:25	b2	yes	no	no	115	NA	NA
8/20/2013	9:53	b2	yes	no	no	115	NA	NA
9/6/2013	10:11	b2	yes	no	no	118	NA	NA
8/6/2013	9:49	b2	yes	no	no	119	NA	NA
8/19/2013	10:30	b2	yes	no	no	119	NA	NA
8/6/2013	9:47	b2	no	no	no	NA	NA	NA
8/6/2013	11:00	b2	no	no	no	NA	NA	NA
8/11/2013	10:25	b2	no	no	no	NA	NA	NA
8/11/2013	10:27	b2	no	no	no	NA	NA	NA
8/11/2013	10:29	b2	no	no	no	NA	NA	NA
8/11/2013	10:31	b2	no	no	no	NA	NA	NA
8/11/2013	10:34	b2	no	no	no	NA	NA	NA
8/11/2013	11:36	b2	no	no	no	NA	NA	NA
8/11/2013	11:38	b2	no	no	no	NA	NA	NA
8/11/2013	11:40	b2	no	no	no	NA	NA	NA
8/11/2013	11:42	b2	no	no	no	NA	NA	NA
8/14/2013	9:54	b2	no	no	no	NA	NA	NA
8/14/2013	9:59	b2	no	no	no	NA	NA	NA
8/14/2013	11:00	b2	no	no	no	NA	NA	NA
8/16/2013	10:13	b2	no	no	no	NA	NA	NA
8/16/2013	10:17	b2	no	no	no	NA	NA	NA
8/16/2013	10:22	b2	no	no	no	NA	NA	NA
8/19/2013	10:39	b2	no	no	no	NA	NA	NA
8/20/2013	9:50	b2	no	no	no	NA	NA	NA
8/20/2013	9:58	b2	no	no	no	NA	NA	NA
8/20/2013	11:05	b2	no	no	no	NA	NA	NA
8/20/2013	11:07	b2	no	no	no	NA	NA	NA
8/20/2013	11:10	b2	no	no	no	NA	NA	NA
8/20/2013	11:12	b2	no	no	no	NA	NA	NA
8/26/2013	10:28	b2	no	no	no	NA	NA	NA
9/3/2013	11:01	b2	no	no	no	NA	NA	NA
9/6/2013	10:52	b2	no	no	no	NA	NA	NA
9/6/2013	10:55	b2	no	no	no	NA	NA	NA
9/9/2013	10:24	b2	no	no	no	NA	NA	NA

9/9/2013	11:00	b2	no	no	no	NA	NA	NA
8/6/2013	10:19	b3	yes	no	no	3	NA	NA
8/22/2013	10:20	b3	yes	no	no	5	NA	NA
8/14/2013	10:07	b3	yes	yes	yes	7	8	13
9/2/2013	11:16	b3	yes	no	no	7	NA	NA
8/14/2013	10:05	b3	yes	yes	yes	9	10	17
9/11/2013	10:20	b3	yes	no	no	9	NA	NA
8/22/2013	11:08	b3	yes	yes	yes	12	30	39
9/6/2013	10:14	b3	yes	yes	yes	12	17	18
8/14/2013	11:09	b3	yes	no	no	13	NA	NA
9/6/2013	10:20	b3	yes	yes	no	13	17	NA
8/12/2013	9:49	b3	yes	yes	yes	15	15	24
8/22/2013	10:23	b3	yes	yes	yes	15	18	26
8/19/2013	9:35	b3	yes	no	no	16	NA	NA
9/2/2013	11:12	b3	yes	yes	yes	16	32	45
9/2/2013	9:47	b3	yes	yes	yes	20	74	86
9/2/2013	11:09	b3	yes	no	no	21	NA	NA
9/2/2013	11:13	b3	yes	no	no	21	NA	NA
8/28/2013	10:25	b3	yes	no	no	24	NA	NA
8/14/2013	11:13	b3	yes	yes	yes	27	59	67
8/16/2013	11:37	b3	yes	no	no	29	NA	NA
9/2/2013	9:44	b3	yes	no	no	29	NA	NA
8/14/2013	11:11	b3	yes	yes	yes	31	43	49
8/22/2013	10:24	b3	yes	no	no	31	NA	NA
8/28/2013	10:27	b3	yes	no	no	35	NA	NA
8/14/2013	10:07	b3	yes	yes	yes	41	43	48
8/16/2013	11:39	b3	yes	no	no	41	NA	NA
8/14/2013	10:03	b3	yes	no	no	50	NA	NA
8/22/2013	10:18	b3	yes	no	no	53	NA	NA
8/12/2013	9:43	b3	yes	no	no	55	NA	NA
8/19/2013	11:42	b3	yes	yes	yes	55	58	74
8/28/2013	10:29	b3	yes	yes	yes	58	62	72
9/2/2013	9:51	b3	yes	yes	yes	58	62	75
8/6/2013	10:23	b3	yes	no	no	59	NA	NA
9/11/2013	11:32	b3	yes	yes	yes	60	85	93
8/16/2013	10:27	b3	yes	no	no	62	NA	NA
9/11/2013	10:18	b3	yes	yes	yes	62	89	96
8/14/2013	10:09	b3	yes	yes	yes	63	65	69
8/20/2013	10:19	b3	yes	no	no	68	NA	NA
8/22/2013	11:10	b3	yes	yes	yes	69	88	99
9/11/2013	11:30	b3	yes	no	no	69	NA	NA
9/6/2013	11:37	b3	yes	yes	yes	70	96	102
9/2/2013	9:49	b3	yes	no	no	73	NA	NA
8/19/2013	11:44	b3	yes	yes	no	74	78	NA
8/28/2013	11:23	b3	yes	no	no	75	NA	NA
8/28/2013	10:31	b3	yes	yes	yes	77	99	108
8/28/2013	11:21	b3	yes	no	no	80	NA	NA
8/14/2013	11:07	b3	yes	yes	yes	81	94	98
8/22/2013	11:05	b3	yes	no	no	81	NA	NA
8/6/2013	10:21	b3	yes	no	no	89	NA	NA

8/6/2013	11:28	b3	yes	no	no	95	NA	NA
8/19/2013	11:46	b3	yes	no	no	95	NA	NA
8/28/2013	11:12	b3	yes	no	no	95	NA	NA
9/2/2013	9:53	b3	yes	no	no	98	NA	NA
8/16/2013	11:35	b3	yes	yes	yes	99	103	111
8/22/2013	10:27	b3	yes	yes	yes	100	102	109
8/28/2013	11:17	b3	yes	no	no	105	NA	NA
9/11/2013	10:16	b3	yes	no	no	105	NA	NA
8/19/2013	9:40	b3	yes	yes	yes	110	111	120
9/6/2013	10:22	b3	yes	no	no	118	NA	NA
8/28/2013	11:19	b3	yes	no	no	119	NA	NA
8/6/2013	10:14	b3	no	no	no	NA	NA	NA
8/6/2013	10:16	b3	no	no	no	NA	NA	NA
8/6/2013	11:21	b3	no	no	no	NA	NA	NA
8/6/2013	11:23	b3	no	no	no	NA	NA	NA
8/6/2013	11:25	b3	no	no	no	NA	NA	NA
8/12/2013	9:45	b3	no	no	no	NA	NA	NA
8/12/2013	9:47	b3	no	no	no	NA	NA	NA
8/12/2013	9:50	b3	no	no	no	NA	NA	NA
8/12/2013	10:52	b3	no	no	no	NA	NA	NA
8/12/2013	10:54	b3	no	no	no	NA	NA	NA
8/12/2013	10:56	b3	no	no	no	NA	NA	NA
8/12/2013	10:58	b3	no	no	no	NA	NA	NA
8/16/2013	10:25	b3	no	no	no	NA	NA	NA
8/16/2013	10:29	b3	no	no	no	NA	NA	NA
8/16/2013	10:31	b3	no	no	no	NA	NA	NA
8/16/2013	10:33	b3	no	no	no	NA	NA	NA
8/16/2013	11:33	b3	no	no	no	NA	NA	NA
8/19/2013	9:32	b3	no	no	no	NA	NA	NA
8/19/2013	9:37	b3	no	no	no	NA	NA	NA
8/19/2013	9:43	b3	no	no	no	NA	NA	NA
8/19/2013	11:40	b3	no	no	no	NA	NA	NA
8/20/2013	10:16	b3	no	no	no	NA	NA	NA
8/20/2013	10:21	b3	no	no	no	NA	NA	NA
8/20/2013	10:23	b3	no	no	no	NA	NA	NA
8/20/2013	10:26	b3	no	no	no	NA	NA	NA
8/20/2013	11:41	b3	no	no	no	NA	NA	NA
8/20/2013	11:43	b3	no	no	no	NA	NA	NA
8/20/2013	11:45	b3	no	no	no	NA	NA	NA
8/20/2013	11:47	b3	no	no	no	NA	NA	NA
8/22/2013	11:03	b3	no	no	no	NA	NA	NA
8/28/2013	11:14	b3	no	no	no	NA	NA	NA
9/6/2013	10:15	b3	no	no	no	NA	NA	NA
9/6/2013	10:18	b3	no	no	no	NA	NA	NA
9/6/2013	11:35	b3	no	no	no	NA	NA	NA
9/6/2013	11:39	b3	no	no	no	NA	NA	NA
9/6/2013	11:41	b3	no	no	no	NA	NA	NA
9/11/2013	10:14	b3	no	no	no	NA	NA	NA
9/11/2013	10:23	b3	no	no	no	NA	NA	NA
9/11/2013	11:35	b3	no	no	no	NA	NA	NA

9/11/2013	11:38	b3	no	no	no	NA	NA	NA
9/11/2013	10:44	c0	yes	yes	yes	3	18	62
7/25/2013	10:20	c0	yes	yes	yes	5	51	87
9/11/2013	11:11	c0	yes	no	no	9	NA	NA
7/24/2013	10:08	c0	yes	no	no	17	NA	NA
7/26/2013	10:39	c0	yes	yes	yes	18	21	30
7/25/2013	11:26	c0	yes	no	no	19	NA	NA
9/3/2013	10:56	c0	yes	no	no	19	NA	NA
7/25/2013	10:26	c0	yes	yes	yes	20	24	35
7/24/2013	10:06	c0	yes	yes	yes	23	42	79
8/29/2013	9:56	c0	yes	yes	yes	25	31	42
7/31/2013	11:39	c0	yes	no	no	30	NA	NA
7/25/2013	11:22	c0	yes	no	no	31	NA	NA
7/25/2013	11:24	c0	yes	yes	yes	35	54	69
8/29/2013	9:54	c0	yes	no	no	38	NA	NA
7/29/2013	10:19	c0	yes	no	no	39	NA	NA
8/29/2013	11:00	c0	yes	no	no	41	NA	NA
7/29/2013	10:26	c0	yes	no	no	43	NA	NA
7/31/2013	11:42	c0	yes	no	no	45	NA	NA
7/25/2013	10:18	c0	yes	yes	yes	55	59	105
7/24/2013	10:03	c0	yes	no	no	57	NA	NA
7/28/2013	11:12	c0	yes	no	no	57	NA	NA
9/3/2013	10:29	c0	yes	yes	yes	59	81	92
7/24/2013	11:06	c0	yes	no	no	61	NA	NA
9/10/2013	9:39	c0	yes	yes	yes	61	75	88
7/31/2013	11:35	c0	yes	no	no	65	NA	NA
9/11/2013	10:38	c0	yes	no	no	68	NA	NA
7/24/2013	11:11	c0	yes	yes	yes	70	73	91
7/26/2013	10:31	c0	yes	no	no	70	NA	NA
7/31/2013	10:22	c0	yes	yes	yes	73	74	82
9/10/2013	11:46	c0	yes	no	no	75	NA	NA
9/10/2013	11:41	c0	yes	no	no	76	NA	NA
7/28/2013	11:02	c0	yes	yes	yes	79	79	89
7/29/2013	11:19	c0	yes	no	no	83	NA	NA
7/26/2013	10:53	c0	yes	no	no	89	NA	NA
7/28/2013	12:03	c0	yes	yes	no	91	115	NA
9/10/2013	9:30	c0	yes	no	no	95	NA	NA
7/31/2013	10:19	c0	yes	no	no	99	NA	NA
9/3/2013	10:58	c0	yes	yes	yes	102	103	114
7/28/2013	12:08	c0	yes	no	no	105	NA	NA
9/11/2013	11:18	c0	yes	no	no	105	NA	NA
9/11/2013	10:42	c0	yes	no	no	108	NA	NA
9/3/2013	10:36	c0	yes	no	no	119	NA	NA
7/24/2013	9:59	c0	no	no	no	NA	NA	NA
7/24/2013	10:01	c0	no	no	no	NA	NA	NA
7/24/2013	11:08	c0	no	no	no	NA	NA	NA
7/24/2013	11:13	c0	no	no	no	NA	NA	NA
7/25/2013	10:22	c0	no	no	no	NA	NA	NA
7/25/2013	10:24	c0	no	no	no	NA	NA	NA
7/25/2013	11:20	c0	no	no	no	NA	NA	NA

7/26/2013	10:29	c0	no	no	no	NA	NA	NA
7/26/2013	10:34	c0	no	no	no	NA	NA	NA
7/26/2013	10:36	c0	no	no	no	NA	NA	NA
7/26/2013	10:51	c0	no	no	no	NA	NA	NA
7/26/2013	10:56	c0	no	no	no	NA	NA	NA
7/26/2013	10:58	c0	no	no	no	NA	NA	NA
7/28/2013	11:04	c0	no	no	no	NA	NA	NA
7/28/2013	11:07	c0	no	no	no	NA	NA	NA
7/28/2013	11:09	c0	no	no	no	NA	NA	NA
7/28/2013	12:01	c0	no	no	no	NA	NA	NA
7/28/2013	12:06	c0	no	no	no	NA	NA	NA
7/29/2013	10:17	c0	no	no	no	NA	NA	NA
7/29/2013	10:22	c0	no	no	no	NA	NA	NA
7/29/2013	10:24	c0	no	no	no	NA	NA	NA
7/29/2013	11:17	c0	no	no	no	NA	NA	NA
7/29/2013	11:22	c0	no	no	no	NA	NA	NA
7/29/2013	11:23	c0	no	no	no	NA	NA	NA
7/31/2013	10:24	c0	no	no	no	NA	NA	NA
7/31/2013	10:26	c0	no	no	no	NA	NA	NA
7/31/2013	10:29	c0	no	no	no	NA	NA	NA
7/31/2013	11:37	c0	no	no	no	NA	NA	NA
8/8/2013	10:05	c0	no	no	no	NA	NA	NA
8/8/2013	10:07	c0	no	no	no	NA	NA	NA
8/8/2013	10:09	c0	no	no	no	NA	NA	NA
8/8/2013	10:11	c0	no	no	no	NA	NA	NA
8/8/2013	10:13	c0	no	no	no	NA	NA	NA
8/8/2013	11:10	c0	no	no	no	NA	NA	NA
8/8/2013	11:12	c0	no	no	no	NA	NA	NA
8/8/2013	11:14	c0	no	no	no	NA	NA	NA
8/8/2013	11:16	c0	no	no	no	NA	NA	NA
8/29/2013	9:50	c0	no	no	no	NA	NA	NA
8/29/2013	9:52	c0	no	no	no	NA	NA	NA
8/29/2013	9:58	c0	no	no	no	NA	NA	NA
8/29/2013	10:55	c0	no	no	no	NA	NA	NA
8/29/2013	10:57	c0	no	no	no	NA	NA	NA
8/29/2013	11:02	c0	no	no	no	NA	NA	NA
9/3/2013	10:27	c0	no	no	no	NA	NA	NA
9/3/2013	10:31	c0	no	no	no	NA	NA	NA
9/3/2013	10:34	c0	no	no	no	NA	NA	NA
9/3/2013	10:49	c0	no	no	no	NA	NA	NA
9/3/2013	10:51	c0	no	no	no	NA	NA	NA
9/10/2013	9:32	c0	no	no	no	NA	NA	NA
9/10/2013	9:35	c0	no	no	no	NA	NA	NA
9/10/2013	9:37	c0	no	no	no	NA	NA	NA
9/10/2013	11:38	c0	no	no	no	NA	NA	NA
9/10/2013	11:43	c0	no	no	no	NA	NA	NA
9/11/2013	10:36	c0	no	no	no	NA	NA	NA
9/11/2013	10:40	c0	no	no	no	NA	NA	NA
9/11/2013	11:13	c0	no	no	no	NA	NA	NA
9/11/2013	11:15	c0	no	no	no	NA	NA	NA

9/2/2013	9:58	c1	yes	yes	yes	1	20	33
7/26/2013	9:59	c1	yes	no	no	2	NA	NA
7/25/2013	9:53	c1	yes	no	no	3	NA	NA
7/31/2013	9:43	c1	yes	no	no	3	NA	NA
8/28/2013	11:31	c1	yes	no	no	5	NA	NA
8/28/2013	9:46	c1	yes	no	no	12	NA	NA
8/28/2013	9:43	c1	yes	no	no	15	NA	NA
7/24/2013	11:40	c1	yes	no	no	17	NA	NA
7/24/2013	10:38	c1	yes	no	no	21	NA	NA
9/2/2013	10:49	c1	yes	yes	yes	21	79	88
7/24/2013	11:38	c1	yes	yes	yes	29	32	71
7/31/2013	10:53	c1	yes	no	no	29	NA	NA
7/25/2013	9:58	c1	yes	no	no	30	NA	NA
7/26/2013	9:53	c1	yes	no	no	31	NA	NA
9/12/2013	10:08	c1	yes	no	no	48	NA	NA
8/23/2013	10:11	c1	yes	yes	yes	50	52	63
9/12/2013	10:04	c1	yes	no	no	51	NA	NA
9/4/2013	11:17	c1	yes	no	no	52	NA	NA
7/31/2013	9:33	c1	yes	yes	yes	55	57	60
8/23/2013	11:07	c1	yes	no	no	55	NA	NA
9/2/2013	10:02	c1	yes	yes	yes	57	60	72
9/2/2013	10:51	c1	yes	no	no	58	NA	NA
8/23/2013	10:07	c1	yes	yes	yes	59	68	79
7/26/2013	9:57	c1	yes	no	no	67	NA	NA
7/26/2013	9:56	c1	yes	yes	yes	70	73	81
8/23/2013	11:11	c1	yes	no	no	70	NA	NA
7/25/2013	10:00	c1	yes	yes	yes	72	73	89
7/28/2013	10:46	c1	yes	yes	no	77	79	NA
9/2/2013	9:56	c1	yes	no	no	77	NA	NA
7/29/2013	9:36	c1	yes	no	no	81	NA	NA
7/24/2013	10:40	c1	yes	yes	yes	82	101	114
7/25/2013	11:04	c1	yes	yes	yes	84	111	117
8/28/2013	9:41	c1	yes	yes	yes	86	92	103
7/31/2013	9:35	c1	yes	yes	yes	87	98	105
8/28/2013	11:29	c1	yes	yes	yes	88	89	100
9/4/2013	11:19	c1	yes	yes	yes	88	91	100
7/26/2013	12:12	c1	yes	no	no	90	NA	NA
7/29/2013	11:06	c1	yes	no	no	90	NA	NA
9/2/2013	10:54	c1	yes	no	no	93	NA	NA
7/25/2013	10:02	c1	yes	yes	yes	94	98	102
7/25/2013	11:01	c1	yes	no	no	94	NA	NA
7/25/2013	10:59	c1	yes	no	no	99	NA	NA
7/26/2013	12:18	c1	yes	no	no	115	NA	NA
8/23/2013	11:09	c1	yes	no	no	118	NA	NA
7/24/2013	10:36	c1	no	no	no	NA	NA	NA
7/24/2013	10:43	c1	no	no	no	NA	NA	NA
7/24/2013	10:45	c1	no	no	no	NA	NA	NA
7/24/2013	11:36	c1	no	no	no	NA	NA	NA
7/24/2013	11:42	c1	no	no	no	NA	NA	NA
7/25/2013	9:56	c1	no	no	no	NA	NA	NA

7/25/2013	11:06	c1	no	no	no	NA	NA	NA
7/26/2013	10:02	c1	no	no	no	NA	NA	NA
7/26/2013	12:14	c1	no	no	no	NA	NA	NA
7/26/2013	12:17	c1	no	no	no	NA	NA	NA
7/28/2013	10:48	c1	no	no	no	NA	NA	NA
7/28/2013	10:51	c1	no	no	no	NA	NA	NA
7/28/2013	10:53	c1	no	no	no	NA	NA	NA
7/28/2013	10:55	c1	no	no	no	NA	NA	NA
7/28/2013	11:52	c1	no	no	no	NA	NA	NA
7/28/2013	11:54	c1	no	no	no	NA	NA	NA
7/28/2013	11:56	c1	no	no	no	NA	NA	NA
7/28/2013	11:58	c1	no	no	no	NA	NA	NA
7/29/2013	9:30	c1	no	no	no	NA	NA	NA
7/29/2013	9:32	c1	no	no	no	NA	NA	NA
7/29/2013	9:34	c1	no	no	no	NA	NA	NA
7/29/2013	9:39	c1	no	no	no	NA	NA	NA
7/29/2013	11:02	c1	no	no	no	NA	NA	NA
7/29/2013	11:04	c1	no	no	no	NA	NA	NA
7/29/2013	11:08	c1	no	no	no	NA	NA	NA
7/31/2013	9:37	c1	no	no	no	NA	NA	NA
7/31/2013	9:40	c1	no	no	no	NA	NA	NA
7/31/2013	10:55	c1	no	no	no	NA	NA	NA
7/31/2013	10:57	c1	no	no	no	NA	NA	NA
7/31/2013	10:59	c1	no	no	no	NA	NA	NA
8/13/2013	10:18	c1	no	no	no	NA	NA	NA
8/13/2013	10:20	c1	no	no	no	NA	NA	NA
8/13/2013	10:22	c1	no	no	no	NA	NA	NA
8/13/2013	10:24	c1	no	no	no	NA	NA	NA
8/13/2013	10:26	c1	no	no	no	NA	NA	NA
8/13/2013	11:28	c1	no	no	no	NA	NA	NA
8/13/2013	11:30	c1	no	no	no	NA	NA	NA
8/13/2013	11:32	c1	no	no	no	NA	NA	NA
8/13/2013	11:35	c1	no	no	no	NA	NA	NA
8/23/2013	10:02	c1	no	no	no	NA	NA	NA
8/23/2013	10:04	c1	no	no	no	NA	NA	NA
8/23/2013	10:09	c1	no	no	no	NA	NA	NA
8/23/2013	11:04	c1	no	no	no	NA	NA	NA
8/28/2013	9:37	c1	no	no	no	NA	NA	NA
8/28/2013	9:39	c1	no	no	no	NA	NA	NA
8/28/2013	11:26	c1	no	no	no	NA	NA	NA
8/28/2013	11:33	c1	no	no	no	NA	NA	NA
9/2/2013	9:59	c1	no	no	no	NA	NA	NA
9/2/2013	10:03	c1	no	no	no	NA	NA	NA
9/2/2013	10:56	c1	no	no	no	NA	NA	NA
9/4/2013	11:14	c1	no	no	no	NA	NA	NA
9/4/2013	11:22	c1	no	no	no	NA	NA	NA
9/12/2013	9:59	c1	no	no	no	NA	NA	NA
9/12/2013	10:01	c1	no	no	no	NA	NA	NA
9/12/2013	10:06	c1	no	no	no	NA	NA	NA
9/12/2013	11:17	c1	no	no	no	NA	NA	NA

9/12/2013	11:20	c1	no	no	no	NA	NA	NA
9/12/2013	11:22	c1	no	no	no	NA	NA	NA
9/12/2013	11:25	c1	no	no	no	NA	NA	NA
7/31/2013	9:58	c2	yes	no	no	1	NA	NA
9/5/2013	11:26	c2	yes	yes	yes	2	80	89
7/28/2013	10:33	c2	yes	yes	no	10	11	NA
7/24/2013	10:26	c2	yes	yes	yes	14	26	44
7/25/2013	9:42	c2	yes	yes	yes	14	19	26
7/26/2013	10:25	c2	yes	no	no	19	NA	NA
9/11/2013	10:05	c2	yes	yes	yes	19	78	84
8/12/2013	10:33	c2	yes	no	no	21	NA	NA
7/26/2013	10:28	c2	yes	yes	yes	22	27	35
7/25/2013	10:56	c2	yes	no	no	25	NA	NA
8/26/2013	9:55	c2	yes	no	no	25	NA	NA
7/29/2013	10:10	c2	yes	no	no	26	NA	NA
7/25/2013	9:48	c2	yes	yes	yes	32	33	37
7/25/2013	10:52	c2	yes	yes	yes	32	33	39
7/25/2013	9:45	c2	yes	no	no	34	NA	NA
7/24/2013	11:33	c2	yes	yes	yes	35	43	62
7/24/2013	10:33	c2	yes	no	no	37	NA	NA
9/5/2013	9:33	c2	yes	no	no	37	NA	NA
7/25/2013	9:43	c2	yes	no	no	39	NA	NA
7/25/2013	10:50	c2	yes	no	no	41	NA	NA
7/26/2013	11:14	c2	yes	no	no	44	NA	NA
8/26/2013	10:02	c2	yes	yes	yes	44	55	66
9/5/2013	9:31	c2	yes	no	no	44	NA	NA
9/11/2013	10:48	c2	yes	no	no	45	NA	NA
7/24/2013	10:24	c2	yes	no	no	47	NA	NA
8/22/2013	11:15	c2	yes	yes	yes	47	52	65
8/26/2013	11:09	c2	yes	no	no	48	NA	NA
7/28/2013	10:31	c2	yes	no	no	53	NA	NA
7/28/2013	11:47	c2	yes	no	no	54	NA	NA
7/24/2013	11:29	c2	yes	yes	yes	57	63	78
7/24/2013	10:29	c2	yes	no	no	58	NA	NA
9/4/2013	10:24	c2	yes	yes	yes	60	65	73
9/5/2013	11:31	c2	yes	yes	yes	60	100	108
7/28/2013	11:49	c2	yes	no	no	61	NA	NA
9/4/2013	10:21	c2	yes	yes	yes	64	75	86
8/26/2013	11:07	c2	yes	yes	yes	67	75	88
8/26/2013	9:58	c2	yes	yes	yes	68	79	90
9/5/2013	9:36	c2	yes	yes	yes	68	72	88
7/24/2013	11:31	c2	yes	no	no	70	NA	NA
9/11/2013	10:09	c2	yes	yes	yes	72	75	99
7/26/2013	11:20	c2	yes	yes	yes	75	76	86
7/28/2013	10:28	c2	yes	no	no	79	NA	NA
7/31/2013	11:18	c2	yes	yes	yes	81	84	96
9/5/2013	9:40	c2	yes	no	no	82	NA	NA
7/28/2013	10:23	c2	yes	no	no	83	NA	NA
7/26/2013	11:17	c2	yes	no	no	85	NA	NA
7/29/2013	10:05	c2	yes	no	no	85	NA	NA

9/11/2013	10:03	c2	yes	no	no	85	NA	NA
7/31/2013	10:01	c2	yes	no	no	88	NA	NA
7/31/2013	10:03	c2	yes	no	no	95	NA	NA
7/26/2013	10:18	c2	yes	no	no	98	NA	NA
7/24/2013	11:26	c2	yes	no	no	102	NA	NA
9/11/2013	10:52	c2	yes	no	no	102	NA	NA
9/4/2013	10:26	c2	yes	no	no	105	NA	NA
8/22/2013	11:17	c2	yes	no	no	112	NA	NA
7/25/2013	9:50	c2	yes	no	no	115	NA	NA
7/24/2013	10:31	c2	no	no	no	NA	NA	NA
7/25/2013	10:54	c2	no	no	no	NA	NA	NA
7/26/2013	10:21	c2	no	no	no	NA	NA	NA
7/26/2013	10:23	c2	no	no	no	NA	NA	NA
7/26/2013	11:12	c2	no	no	no	NA	NA	NA
7/28/2013	10:26	c2	no	no	no	NA	NA	NA
7/28/2013	11:43	c2	no	no	no	NA	NA	NA
7/28/2013	11:45	c2	no	no	no	NA	NA	NA
7/29/2013	10:07	c2	no	no	no	NA	NA	NA
7/29/2013	10:12	c2	no	no	no	NA	NA	NA
7/29/2013	10:14	c2	no	no	no	NA	NA	NA
7/29/2013	11:29	c2	no	no	no	NA	NA	NA
7/29/2013	11:31	c2	no	no	no	NA	NA	NA
7/29/2013	11:33	c2	no	no	no	NA	NA	NA
7/29/2013	11:35	c2	no	no	no	NA	NA	NA
7/31/2013	9:56	c2	no	no	no	NA	NA	NA
7/31/2013	10:05	c2	no	no	no	NA	NA	NA
7/31/2013	11:11	c2	no	no	no	NA	NA	NA
7/31/2013	11:14	c2	no	no	no	NA	NA	NA
7/31/2013	11:16	c2	no	no	no	NA	NA	NA
8/11/2013	10:37	c2	no	no	no	NA	NA	NA
8/11/2013	10:39	c2	no	no	no	NA	NA	NA
8/11/2013	10:41	c2	no	no	no	NA	NA	NA
8/11/2013	10:43	c2	no	no	no	NA	NA	NA
8/11/2013	10:45	c2	no	no	no	NA	NA	NA
8/12/2013	10:27	c2	no	no	no	NA	NA	NA
8/12/2013	10:29	c2	no	no	no	NA	NA	NA
8/12/2013	10:31	c2	no	no	no	NA	NA	NA
8/12/2013	10:35	c2	no	no	no	NA	NA	NA
8/12/2013	11:29	c2	no	no	no	NA	NA	NA
8/12/2013	11:31	c2	no	no	no	NA	NA	NA
8/12/2013	11:33	c2	no	no	no	NA	NA	NA
8/12/2013	11:35	c2	no	no	no	NA	NA	NA
8/22/2013	11:13	c2	no	no	no	NA	NA	NA
8/22/2013	11:19	c2	no	no	no	NA	NA	NA
8/26/2013	9:52	c2	no	no	no	NA	NA	NA
8/26/2013	10:00	c2	no	no	no	NA	NA	NA
8/26/2013	11:02	c2	no	no	no	NA	NA	NA
8/26/2013	11:04	c2	no	no	no	NA	NA	NA
9/4/2013	10:17	c2	no	no	no	NA	NA	NA
9/4/2013	10:19	c2	no	no	no	NA	NA	NA

9/5/2013	9:39	c2	no	no	no	NA	NA	NA
9/5/2013	11:24	c2	no	no	no	NA	NA	NA
9/5/2013	11:29	c2	no	no	no	NA	NA	NA
9/11/2013	10:07	c2	no	no	no	NA	NA	NA
9/11/2013	10:11	c2	no	no	no	NA	NA	NA
9/11/2013	10:46	c2	no	no	no	NA	NA	NA
9/11/2013	10:50	c2	no	no	no	NA	NA	NA
7/25/2013	10:12	c3	yes	yes	yes	17	90	110
7/24/2013	10:21	c3	yes	no	no	24	NA	NA
7/24/2013	11:23	c3	yes	yes	yes	25	33	54
7/26/2013	9:40	c3	yes	no	no	32	NA	NA
9/10/2013	10:00	c3	yes	no	no	35	NA	NA
7/28/2013	10:18	c3	yes	no	no	38	NA	NA
7/25/2013	11:11	c3	yes	no	no	39	NA	NA
7/24/2013	11:20	c3	yes	no	no	41	NA	NA
7/24/2013	11:16	c3	yes	yes	yes	42	47	65
7/24/2013	10:19	c3	yes	yes	yes	53	56	99
7/29/2013	9:58	c3	yes	no	no	55	NA	NA
7/26/2013	9:45	c3	yes	yes	yes	62	75	83
7/26/2013	11:04	c3	yes	no	no	66	NA	NA
7/31/2013	10:41	c3	yes	no	no	67	NA	NA
9/9/2013	10:36	c3	yes	no	no	69	NA	NA
9/10/2013	11:18	c3	yes	no	no	70	NA	NA
7/31/2013	10:36	c3	yes	yes	no	75	84	NA
9/9/2013	10:31	c3	yes	yes	yes	75	79	85
7/28/2013	10:13	c3	yes	no	no	81	NA	NA
7/25/2013	11:13	c3	yes	no	no	83	NA	NA
9/10/2013	11:21	c3	yes	yes	yes	83	84	85
7/24/2013	10:16	c3	yes	yes	yes	84	95	113
7/25/2013	10:07	c3	yes	yes	yes	91	102	114
8/22/2013	10:37	c3	yes	no	no	93	NA	NA
7/24/2013	11:18	c3	yes	yes	yes	95	102	113
9/9/2013	11:23	c3	yes	no	no	99	NA	NA
8/27/2013	10:00	c3	yes	no	no	102	NA	NA
7/24/2013	10:12	c3	yes	no	no	103	NA	NA
7/31/2013	11:46	c3	yes	no	no	103	NA	NA
8/22/2013	10:32	c3	yes	no	no	105	NA	NA
7/31/2013	11:52	c3	yes	yes	yes	110	113	119
8/27/2013	10:02	c3	yes	no	no	110	NA	NA
7/26/2013	11:09	c3	yes	no	no	113	NA	NA
7/28/2013	10:10	c3	yes	yes	no	114	115	NA
7/29/2013	9:55	c3	yes	no	no	119	NA	NA
7/24/2013	10:14	c3	no	no	no	NA	NA	NA
7/25/2013	10:05	c3	no	no	no	NA	NA	NA
7/25/2013	10:10	c3	no	no	no	NA	NA	NA
7/25/2013	10:15	c3	no	no	no	NA	NA	NA
7/25/2013	11:09	c3	no	no	no	NA	NA	NA
7/25/2013	11:16	c3	no	no	no	NA	NA	NA
7/26/2013	9:43	c3	no	no	no	NA	NA	NA
7/26/2013	9:47	c3	no	no	no	NA	NA	NA

7/26/2013	9:49	c3	no	no	no	NA	NA	NA
7/26/2013	11:02	c3	no	no	no	NA	NA	NA
7/26/2013	11:06	c3	no	no	no	NA	NA	NA
7/28/2013	10:15	c3	no	no	no	NA	NA	NA
7/28/2013	10:20	c3	no	no	no	NA	NA	NA
7/28/2013	11:34	c3	no	no	no	NA	NA	NA
7/28/2013	11:36	c3	no	no	no	NA	NA	NA
7/28/2013	11:38	c3	no	no	no	NA	NA	NA
7/28/2013	11:40	c3	no	no	no	NA	NA	NA
7/29/2013	9:53	c3	no	no	no	NA	NA	NA
7/29/2013	10:00	c3	no	no	no	NA	NA	NA
7/29/2013	10:02	c3	no	no	no	NA	NA	NA
7/29/2013	11:20	c3	no	no	no	NA	NA	NA
7/29/2013	11:22	c3	no	no	no	NA	NA	NA
7/29/2013	11:24	c3	no	no	no	NA	NA	NA
7/29/2013	11:26	c3	no	no	no	NA	NA	NA
7/31/2013	10:32	c3	no	no	no	NA	NA	NA
7/31/2013	10:34	c3	no	no	no	NA	NA	NA
7/31/2013	10:39	c3	no	no	no	NA	NA	NA
7/31/2013	11:44	c3	no	no	no	NA	NA	NA
7/31/2013	11:48	c3	no	no	no	NA	NA	NA
8/11/2013	11:45	c3	no	no	no	NA	NA	NA
8/11/2013	11:47	c3	no	no	no	NA	NA	NA
8/11/2013	11:49	c3	no	no	no	NA	NA	NA
8/11/2013	11:51	c3	no	no	no	NA	NA	NA
8/22/2013	10:30	c3	no	no	no	NA	NA	NA
8/22/2013	10:34	c3	no	no	no	NA	NA	NA
8/22/2013	10:39	c3	no	no	no	NA	NA	NA
8/27/2013	9:57	c3	no	no	no	NA	NA	NA
8/27/2013	10:04	c3	no	no	no	NA	NA	NA
8/27/2013	10:07	c3	no	no	no	NA	NA	NA
8/27/2013	11:29	c3	no	no	no	NA	NA	NA
8/27/2013	11:31	c3	no	no	no	NA	NA	NA
8/27/2013	11:33	c3	no	no	no	NA	NA	NA
8/27/2013	11:35	c3	no	no	no	NA	NA	NA
9/9/2013	10:29	c3	no	no	no	NA	NA	NA
9/9/2013	10:34	c3	no	no	no	NA	NA	NA
9/9/2013	10:38	c3	no	no	no	NA	NA	NA
9/9/2013	11:21	c3	no	no	no	NA	NA	NA
9/9/2013	11:25	c3	no	no	no	NA	NA	NA
9/9/2013	11:28	c3	no	no	no	NA	NA	NA
9/10/2013	10:03	c3	no	no	no	NA	NA	NA
9/10/2013	10:05	c3	no	no	no	NA	NA	NA
9/10/2013	10:07	c3	no	no	no	NA	NA	NA
9/10/2013	10:10	c3	no	no	no	NA	NA	NA
9/10/2013	11:23	c3	no	no	no	NA	NA	NA
9/10/2013	11:25	c3	no	no	no	NA	NA	NA
7/15/2013	11:01	d0	yes	no	no	3	NA	NA
7/9/2013	11:43	d0	yes	no	no	9	NA	NA
8/27/2013	11:14	d0	yes	no	no	14	NA	NA

7/13/2013	11:16	d0	yes	yes	yes	20	48	60
7/15/2013	10:59	d0	yes	yes	no	25	27	NA
7/15/2013	10:56	d0	yes	no	no	29	NA	NA
9/10/2013	10:29	d0	yes	no	no	29	NA	NA
9/10/2013	10:33	d0	yes	no	no	40	NA	NA
7/17/2013	9:35	d0	yes	no	no	45	NA	NA
7/15/2013	11:03	d0	yes	no	no	47	NA	NA
7/15/2013	9:50	d0	yes	no	no	48	NA	NA
7/19/2013	10:27	d0	yes	no	no	50	NA	NA
7/13/2013	11:17	d0	yes	no	no	57	NA	NA
7/19/2013	10:32	d0	yes	no	no	62	NA	NA
7/19/2013	11:32	d0	yes	no	no	63	NA	NA
7/13/2013	11:25	d0	yes	yes	yes	67	102	108
7/19/2013	11:27	d0	yes	no	no	67	NA	NA
7/29/2013	11:28	d0	yes	no	no	69	NA	NA
9/10/2013	11:03	d0	yes	yes	yes	77	104	117
9/12/2013	9:51	d0	yes	no	no	79	NA	NA
7/19/2013	10:30	d0	yes	no	no	83	NA	NA
7/17/2013	10:54	d0	yes	no	no	97	NA	NA
8/27/2013	9:34	d0	yes	yes	yes	98	99	108
8/22/2013	10:02	d0	yes	yes	yes	99	102	113
7/9/2013	10:38	d0	no	no	no	NA	NA	NA
7/9/2013	10:41	d0	no	no	no	NA	NA	NA
7/9/2013	10:43	d0	no	no	no	NA	NA	NA
7/9/2013	10:45	d0	no	no	no	NA	NA	NA
7/9/2013	10:48	d0	no	no	no	NA	NA	NA
7/9/2013	11:41	d0	no	no	no	NA	NA	NA
7/9/2013	11:46	d0	no	no	no	NA	NA	NA
7/9/2013	11:49	d0	no	no	no	NA	NA	NA
7/13/2013	9:45	d0	no	no	no	NA	NA	NA
7/13/2013	9:47	d0	no	no	no	NA	NA	NA
7/13/2013	9:49	d0	no	no	no	NA	NA	NA
7/13/2013	9:52	d0	no	no	no	NA	NA	NA
7/13/2013	9:54	d0	no	no	no	NA	NA	NA
7/13/2013	11:19	d0	no	no	no	NA	NA	NA
7/13/2013	11:22	d0	no	no	no	NA	NA	NA
7/15/2013	9:43	d0	no	no	no	NA	NA	NA
7/15/2013	9:46	d0	no	no	no	NA	NA	NA
7/15/2013	9:48	d0	no	no	no	NA	NA	NA
7/15/2013	9:52	d0	no	no	no	NA	NA	NA
7/17/2013	9:37	d0	no	no	no	NA	NA	NA
7/17/2013	9:39	d0	no	no	no	NA	NA	NA
7/17/2013	9:42	d0	no	no	no	NA	NA	NA
7/17/2013	9:45	d0	no	no	no	NA	NA	NA
7/17/2013	10:47	d0	no	no	no	NA	NA	NA
7/17/2013	10:49	d0	no	no	no	NA	NA	NA
7/17/2013	10:52	d0	no	no	no	NA	NA	NA
7/19/2013	10:35	d0	no	no	no	NA	NA	NA
7/19/2013	10:37	d0	no	no	no	NA	NA	NA
7/19/2013	11:29	d0	no	no	no	NA	NA	NA

7/19/2013	11:34	d0	no	no	no	NA	NA	NA
7/29/2013	10:29	d0	no	no	no	NA	NA	NA
7/29/2013	10:31	d0	no	no	no	NA	NA	NA
7/29/2013	10:34	d0	no	no	no	NA	NA	NA
7/29/2013	10:36	d0	no	no	no	NA	NA	NA
7/29/2013	10:38	d0	no	no	no	NA	NA	NA
7/29/2013	11:26	d0	no	no	no	NA	NA	NA
7/29/2013	11:30	d0	no	no	no	NA	NA	NA
7/29/2013	11:31	d0	no	no	no	NA	NA	NA
8/13/2013	9:42	d0	no	no	no	NA	NA	NA
8/13/2013	9:44	d0	no	no	no	NA	NA	NA
8/13/2013	9:46	d0	no	no	no	NA	NA	NA
8/13/2013	9:48	d0	no	no	no	NA	NA	NA
8/13/2013	9:50	d0	no	no	no	NA	NA	NA
8/13/2013	11:00	d0	no	no	no	NA	NA	NA
8/13/2013	11:02	d0	no	no	no	NA	NA	NA
8/13/2013	11:04	d0	no	no	no	NA	NA	NA
8/13/2013	11:07	d0	no	no	no	NA	NA	NA
8/22/2013	9:53	d0	no	no	no	NA	NA	NA
8/22/2013	9:55	d0	no	no	no	NA	NA	NA
8/22/2013	9:58	d0	no	no	no	NA	NA	NA
8/22/2013	10:00	d0	no	no	no	NA	NA	NA
8/22/2013	10:42	d0	no	no	no	NA	NA	NA
8/22/2013	10:45	d0	no	no	no	NA	NA	NA
8/22/2013	10:47	d0	no	no	no	NA	NA	NA
8/22/2013	10:49	d0	no	no	no	NA	NA	NA
8/27/2013	9:36	d0	no	no	no	NA	NA	NA
8/27/2013	9:38	d0	no	no	no	NA	NA	NA
8/27/2013	9:41	d0	no	no	no	NA	NA	NA
8/27/2013	9:43	d0	no	no	no	NA	NA	NA
8/27/2013	11:10	d0	no	no	no	NA	NA	NA
8/27/2013	11:12	d0	no	no	no	NA	NA	NA
8/27/2013	11:17	d0	no	no	no	NA	NA	NA
9/10/2013	10:24	d0	no	no	no	NA	NA	NA
9/10/2013	10:26	d0	no	no	no	NA	NA	NA
9/10/2013	10:31	d0	no	no	no	NA	NA	NA
9/10/2013	10:58	d0	no	no	no	NA	NA	NA
9/10/2013	11:00	d0	no	no	no	NA	NA	NA
9/10/2013	11:05	d0	no	no	no	NA	NA	NA
9/12/2013	9:47	d0	no	no	no	NA	NA	NA
9/12/2013	9:49	d0	no	no	no	NA	NA	NA
9/12/2013	9:54	d0	no	no	no	NA	NA	NA
9/12/2013	9:56	d0	no	no	no	NA	NA	NA
9/12/2013	11:36	d0	no	no	no	NA	NA	NA
9/12/2013	11:38	d0	no	no	no	NA	NA	NA
9/12/2013	11:41	d0	no	no	no	NA	NA	NA
9/12/2013	11:43	d0	no	no	no	NA	NA	NA
9/12/2013	10:14	d1	yes	no	no	1	NA	NA
7/9/2013	9:39	d1	yes	no	no	3	NA	NA
7/14/2013	10:18	d1	yes	yes	yes	4	12	27

9/9/2013	9:40	d1	yes	no	no	19	NA	NA
9/3/2013	9:48	d1	yes	yes	yes	21	35	46
7/17/2013	10:13	d1	yes	yes	yes	23	27	32
7/17/2013	11:24	d1	yes	yes	yes	24	28	50
7/12/2013	11:09	d1	yes	no	no	25	NA	NA
7/12/2013	9:58	d1	yes	no	no	28	NA	NA
7/12/2013	11:06	d1	yes	no	no	33	NA	NA
7/12/2013	9:55	d1	yes	no	no	35	NA	NA
7/14/2013	11:06	d1	yes	yes	yes	45	51	61
9/3/2013	9:41	d1	yes	no	no	46	NA	NA
8/29/2013	10:12	d1	yes	yes	yes	48	53	57
7/9/2013	9:34	d1	yes	no	no	49	NA	NA
7/14/2013	10:21	d1	yes	yes	yes	50	85	120
7/9/2013	10:52	d1	yes	no	no	51	NA	NA
7/14/2013	10:19	d1	yes	no	no	65	NA	NA
9/3/2013	11:31	d1	yes	no	no	67	NA	NA
9/3/2013	9:43	d1	yes	no	no	68	NA	NA
7/14/2013	10:26	d1	yes	yes	yes	70	82	120
7/29/2013	11:17	d1	yes	no	no	70	NA	NA
7/9/2013	10:54	d1	yes	no	no	73	NA	NA
9/3/2013	11:35	d1	yes	yes	yes	75	77	85
9/9/2013	11:16	d1	yes	no	no	81	NA	NA
8/29/2013	10:21	d1	yes	no	no	84	NA	NA
9/9/2013	9:33	d1	yes	no	no	95	NA	NA
7/18/2013	11:08	d1	yes	no	no	103	NA	NA
7/9/2013	9:41	d1	yes	no	no	115	NA	NA
8/29/2013	10:18	d1	yes	no	no	117	NA	NA
7/9/2013	9:36	d1	no	no	no	NA	NA	NA
7/9/2013	9:44	d1	no	no	no	NA	NA	NA
7/9/2013	10:57	d1	no	no	no	NA	NA	NA
7/9/2013	10:59	d1	no	no	no	NA	NA	NA
7/12/2013	10:00	d1	no	no	no	NA	NA	NA
7/12/2013	10:02	d1	no	no	no	NA	NA	NA
7/12/2013	10:05	d1	no	no	no	NA	NA	NA
7/12/2013	11:04	d1	no	no	no	NA	NA	NA
7/12/2013	11:11	d1	no	no	no	NA	NA	NA
7/14/2013	10:24	d1	no	no	no	NA	NA	NA
7/14/2013	11:01	d1	no	no	no	NA	NA	NA
7/14/2013	11:04	d1	no	no	no	NA	NA	NA
7/14/2013	11:07	d1	no	no	no	NA	NA	NA
7/14/2013	11:10	d1	no	no	no	NA	NA	NA
7/17/2013	10:14	d1	no	no	no	NA	NA	NA
7/17/2013	10:16	d1	no	no	no	NA	NA	NA
7/17/2013	10:18	d1	no	no	no	NA	NA	NA
7/17/2013	10:20	d1	no	no	no	NA	NA	NA
7/17/2013	11:17	d1	no	no	no	NA	NA	NA
7/17/2013	11:19	d1	no	no	no	NA	NA	NA
7/17/2013	11:21	d1	no	no	no	NA	NA	NA
7/18/2013	9:58	d1	no	no	no	NA	NA	NA
7/18/2013	10:00	d1	no	no	no	NA	NA	NA

7/18/2013	10:02	d1	no	no	no	NA	NA	NA
7/18/2013	10:04	d1	no	no	no	NA	NA	NA
7/18/2013	10:06	d1	no	no	no	NA	NA	NA
7/18/2013	11:04	d1	no	no	no	NA	NA	NA
7/18/2013	11:06	d1	no	no	no	NA	NA	NA
7/18/2013	11:11	d1	no	no	no	NA	NA	NA
7/29/2013	9:42	d1	no	no	no	NA	NA	NA
7/29/2013	9:44	d1	no	no	no	NA	NA	NA
7/29/2013	9:46	d1	no	no	no	NA	NA	NA
7/29/2013	9:48	d1	no	no	no	NA	NA	NA
7/29/2013	9:51	d1	no	no	no	NA	NA	NA
7/29/2013	11:11	d1	no	no	no	NA	NA	NA
7/29/2013	11:13	d1	no	no	no	NA	NA	NA
7/29/2013	11:15	d1	no	no	no	NA	NA	NA
8/12/2013	9:53	d1	no	no	no	NA	NA	NA
8/12/2013	9:55	d1	no	no	no	NA	NA	NA
8/12/2013	9:57	d1	no	no	no	NA	NA	NA
8/12/2013	9:59	d1	no	no	no	NA	NA	NA
8/12/2013	10:01	d1	no	no	no	NA	NA	NA
8/12/2013	11:01	d1	no	no	no	NA	NA	NA
8/12/2013	11:03	d1	no	no	no	NA	NA	NA
8/12/2013	11:05	d1	no	no	no	NA	NA	NA
8/12/2013	11:07	d1	no	no	no	NA	NA	NA
8/29/2013	10:13	d1	no	no	no	NA	NA	NA
8/29/2013	10:16	d1	no	no	no	NA	NA	NA
8/29/2013	10:36	d1	no	no	no	NA	NA	NA
8/29/2013	10:38	d1	no	no	no	NA	NA	NA
8/29/2013	10:40	d1	no	no	no	NA	NA	NA
8/29/2013	10:43	d1	no	no	no	NA	NA	NA
9/3/2013	9:45	d1	no	no	no	NA	NA	NA
9/3/2013	9:49	d1	no	no	no	NA	NA	NA
9/3/2013	11:29	d1	no	no	no	NA	NA	NA
9/3/2013	11:33	d1	no	no	no	NA	NA	NA
9/9/2013	9:31	d1	no	no	no	NA	NA	NA
9/9/2013	9:35	d1	no	no	no	NA	NA	NA
9/9/2013	9:37	d1	no	no	no	NA	NA	NA
9/9/2013	11:10	d1	no	no	no	NA	NA	NA
9/9/2013	11:13	d1	no	no	no	NA	NA	NA
9/9/2013	11:18	d1	no	no	no	NA	NA	NA
9/12/2013	10:11	d1	no	no	no	NA	NA	NA
9/12/2013	10:16	d1	no	no	no	NA	NA	NA
9/12/2013	10:18	d1	no	no	no	NA	NA	NA
9/12/2013	10:21	d1	no	no	no	NA	NA	NA
9/12/2013	10:47	d1	no	no	no	NA	NA	NA
9/12/2013	10:50	d1	no	no	no	NA	NA	NA
9/12/2013	10:52	d1	no	no	no	NA	NA	NA
9/12/2013	10:54	d1	no	no	no	NA	NA	NA
7/19/2013	10:51	d2	yes	yes	yes	2	23	56
7/31/2013	9:49	d2	yes	no	no	2	NA	NA
7/31/2013	9:46	d2	yes	yes	yes	3	5	14

7/14/2013	10:08	d2	yes	yes	yes	10	13	23
7/13/2013	9:40	d2	yes	yes	yes	11	59	66
7/9/2013	9:52	d2	yes	no	no	14	NA	NA
7/13/2013	9:38	d2	yes	yes	no	15	89	NA
7/13/2013	11:10	d2	yes	yes	yes	25	54	65
8/26/2013	9:38	d2	yes	no	no	27	NA	NA
9/11/2013	11:23	d2	yes	yes	no	27	75	NA
7/14/2013	10:12	d2	yes	no	no	30	NA	NA
7/19/2013	10:49	d2	yes	yes	yes	30	38	65
7/19/2013	10:53	d2	yes	no	no	31	NA	NA
7/31/2013	11:08	d2	yes	no	no	33	NA	NA
8/26/2013	9:35	d2	yes	no	no	33	NA	NA
7/14/2013	10:15	d2	yes	no	no	35	NA	NA
7/14/2013	10:14	d2	yes	yes	yes	36	37	43
8/6/2013	11:37	d2	yes	no	no	43	NA	NA
7/14/2013	10:50	d2	yes	no	no	45	NA	NA
8/26/2013	11:26	d2	yes	yes	yes	45	48	60
9/6/2013	11:12	d2	yes	yes	yes	45	46	54
8/26/2013	11:24	d2	yes	no	no	48	NA	NA
7/13/2013	9:35	d2	yes	no	no	49	NA	NA
8/26/2013	9:33	d2	yes	yes	yes	49	75	86
7/14/2013	10:54	d2	yes	yes	yes	50	53	60
9/6/2013	10:28	d2	yes	yes	yes	60	100	118
7/19/2013	9:44	d2	yes	yes	yes	63	65	71
7/13/2013	11:06	d2	yes	yes	yes	65	69	78
7/31/2013	11:04	d2	yes	no	no	70	NA	NA
7/9/2013	9:47	d2	yes	no	no	71	NA	NA
7/16/2013	10:37	d2	yes	yes	no	71	108	NA
7/9/2013	9:57	d2	yes	no	no	73	NA	NA
7/16/2013	10:35	d2	yes	no	no	73	NA	NA
9/11/2013	9:42	d2	yes	yes	yes	73	79	85
7/19/2013	9:46	d2	yes	no	no	77	NA	NA
7/14/2013	10:56	d2	yes	yes	no	79	82	NA
9/6/2013	10:32	d2	yes	yes	no	81	99	NA
8/26/2013	11:22	d2	yes	no	no	83	NA	NA
7/19/2013	10:56	d2	yes	yes	yes	93	94	98
8/26/2013	9:29	d2	yes	no	no	99	NA	NA
7/13/2013	9:33	d2	yes	no	no	104	NA	NA
7/16/2013	11:39	d2	yes	no	no	109	NA	NA
9/6/2013	10:35	d2	yes	no	no	114	NA	NA
8/6/2013	10:29	d2	yes	no	no	115	NA	NA
7/31/2013	9:47	d2	yes	no	no	117	NA	NA
9/11/2013	9:47	d2	yes	no	no	119	NA	NA
9/11/2013	11:25	d2	yes	no	no	120	NA	NA
7/9/2013	9:49	d2	no	no	no	NA	NA	NA
7/9/2013	9:55	d2	no	no	no	NA	NA	NA
7/9/2013	11:02	d2	no	no	no	NA	NA	NA
7/9/2013	11:04	d2	no	no	no	NA	NA	NA
7/9/2013	11:07	d2	no	no	no	NA	NA	NA
7/9/2013	11:09	d2	no	no	no	NA	NA	NA

7/13/2013	9:42	d2	no	no	no	NA	NA	NA
7/13/2013	11:04	d2	no	no	no	NA	NA	NA
7/13/2013	11:08	d2	no	no	no	NA	NA	NA
7/13/2013	11:12	d2	no	no	no	NA	NA	NA
7/14/2013	10:10	d2	no	no	no	NA	NA	NA
7/14/2013	10:52	d2	no	no	no	NA	NA	NA
7/14/2013	10:58	d2	no	no	no	NA	NA	NA
7/16/2013	10:28	d2	no	no	no	NA	NA	NA
7/16/2013	10:30	d2	no	no	no	NA	NA	NA
7/16/2013	10:32	d2	no	no	no	NA	NA	NA
7/16/2013	11:32	d2	no	no	no	NA	NA	NA
7/16/2013	11:34	d2	no	no	no	NA	NA	NA
7/16/2013	11:36	d2	no	no	no	NA	NA	NA
7/19/2013	9:42	d2	no	no	no	NA	NA	NA
7/19/2013	9:48	d2	no	no	no	NA	NA	NA
7/19/2013	9:50	d2	no	no	no	NA	NA	NA
7/31/2013	9:51	d2	no	no	no	NA	NA	NA
7/31/2013	9:53	d2	no	no	no	NA	NA	NA
7/31/2013	11:02	d2	no	no	no	NA	NA	NA
7/31/2013	11:06	d2	no	no	no	NA	NA	NA
8/6/2013	10:27	d2	no	no	no	NA	NA	NA
8/6/2013	10:31	d2	no	no	no	NA	NA	NA
8/6/2013	10:33	d2	no	no	no	NA	NA	NA
8/6/2013	10:35	d2	no	no	no	NA	NA	NA
8/6/2013	11:31	d2	no	no	no	NA	NA	NA
8/6/2013	11:33	d2	no	no	no	NA	NA	NA
8/6/2013	11:35	d2	no	no	no	NA	NA	NA
8/26/2013	9:31	d2	no	no	no	NA	NA	NA
8/26/2013	11:27	d2	no	no	no	NA	NA	NA
9/6/2013	10:26	d2	no	no	no	NA	NA	NA
9/6/2013	10:30	d2	no	no	no	NA	NA	NA
9/6/2013	11:07	d2	no	no	no	NA	NA	NA
9/6/2013	11:10	d2	no	no	no	NA	NA	NA
9/6/2013	11:14	d2	no	no	no	NA	NA	NA
9/11/2013	9:40	d2	no	no	no	NA	NA	NA
9/11/2013	9:44	d2	no	no	no	NA	NA	NA
9/11/2013	9:49	d2	no	no	no	NA	NA	NA
9/11/2013	11:20	d2	no	no	no	NA	NA	NA
9/11/2013	11:27	d2	no	no	no	NA	NA	NA
7/9/2013	10:05	d3	yes	no	no	1	NA	NA
7/15/2013	10:35	d3	yes	no	no	1	NA	NA
7/31/2013	10:12	d3	yes	no	no	2	NA	NA
7/31/2013	10:08	d3	yes	no	no	3	NA	NA
7/18/2013	9:45	d3	yes	no	no	4	NA	NA
8/28/2013	10:47	d3	yes	no	no	8	NA	NA
9/2/2013	10:12	d3	yes	no	no	8	NA	NA
7/16/2013	11:28	d3	yes	yes	yes	10	20	28
8/28/2013	10:22	d3	yes	no	no	14	NA	NA
7/15/2013	11:36	d3	yes	no	no	15	NA	NA
8/16/2013	11:00	d3	yes	no	no	15	NA	NA

9/2/2013	10:47	d3	yes	yes	yes	22	30	41
7/18/2013	10:59	d3	yes	no	no	25	NA	NA
7/18/2013	11:01	d3	yes	no	no	26	NA	NA
7/12/2013	11:26	d3	yes	yes	yes	29	30	35
8/23/2013	10:14	d3	yes	no	no	38	NA	NA
7/31/2013	11:28	d3	yes	yes	yes	54	60	67
7/16/2013	11:23	d3	yes	yes	yes	57	64	68
8/23/2013	10:19	d3	yes	no	no	62	NA	NA
7/9/2013	10:08	d3	yes	no	no	63	NA	NA
7/16/2013	10:25	d3	yes	no	no	63	NA	NA
9/2/2013	10:45	d3	yes	no	no	64	NA	NA
7/18/2013	9:50	d3	yes	no	no	70	NA	NA
9/2/2013	10:43	d3	yes	no	no	70	NA	NA
7/15/2013	10:43	d3	yes	no	no	71	NA	NA
9/2/2013	10:05	d3	yes	yes	no	82	98	NA
7/18/2013	9:55	d3	yes	no	no	87	NA	NA
7/12/2013	11:18	d3	yes	no	no	89	NA	NA
7/12/2013	10:21	d3	yes	no	no	93	NA	NA
7/18/2013	9:48	d3	yes	no	no	94	NA	NA
8/28/2013	10:15	d3	yes	no	no	96	NA	NA
8/28/2013	10:52	d3	yes	no	no	99	NA	NA
7/15/2013	10:41	d3	yes	no	no	103	NA	NA
7/12/2013	10:18	d3	yes	no	no	110	NA	NA
8/23/2013	10:23	d3	yes	no	no	118	NA	NA
8/28/2013	10:17	d3	yes	no	no	119	NA	NA
7/9/2013	10:00	d3	no	no	no	NA	NA	NA
7/9/2013	10:03	d3	no	no	no	NA	NA	NA
7/9/2013	10:10	d3	no	no	no	NA	NA	NA
7/9/2013	11:12	d3	no	no	no	NA	NA	NA
7/9/2013	11:14	d3	no	no	no	NA	NA	NA
7/9/2013	11:16	d3	no	no	no	NA	NA	NA
7/9/2013	11:19	d3	no	no	no	NA	NA	NA
7/12/2013	10:23	d3	no	no	no	NA	NA	NA
7/12/2013	10:26	d3	no	no	no	NA	NA	NA
7/12/2013	10:28	d3	no	no	no	NA	NA	NA
7/12/2013	11:20	d3	no	no	no	NA	NA	NA
7/12/2013	11:21	d3	no	no	no	NA	NA	NA
7/15/2013	10:38	d3	no	no	no	NA	NA	NA
7/15/2013	10:45	d3	no	no	no	NA	NA	NA
7/15/2013	11:38	d3	no	no	no	NA	NA	NA
7/15/2013	11:40	d3	no	no	no	NA	NA	NA
7/15/2013	11:42	d3	no	no	no	NA	NA	NA
7/16/2013	10:16	d3	no	no	no	NA	NA	NA
7/16/2013	10:19	d3	no	no	no	NA	NA	NA
7/16/2013	10:21	d3	no	no	no	NA	NA	NA
7/16/2013	10:23	d3	no	no	no	NA	NA	NA
7/16/2013	11:21	d3	no	no	no	NA	NA	NA
7/16/2013	11:26	d3	no	no	no	NA	NA	NA
7/18/2013	9:52	d3	no	no	no	NA	NA	NA
7/18/2013	10:55	d3	no	no	no	NA	NA	NA

7/18/2013	10:57	d3	no	no	no	NA	NA	NA
7/31/2013	10:10	d3	no	no	no	NA	NA	NA
7/31/2013	10:14	d3	no	no	no	NA	NA	NA
7/31/2013	10:16	d3	no	no	no	NA	NA	NA
7/31/2013	11:21	d3	no	no	no	NA	NA	NA
7/31/2013	11:26	d3	no	no	no	NA	NA	NA
7/31/2013	11:30	d3	no	no	no	NA	NA	NA
8/8/2013	10:16	d3	no	no	no	NA	NA	NA
8/8/2013	10:18	d3	no	no	no	NA	NA	NA
8/8/2013	10:20	d3	no	no	no	NA	NA	NA
8/8/2013	10:22	d3	no	no	no	NA	NA	NA
8/8/2013	10:24	d3	no	no	no	NA	NA	NA
8/8/2013	11:19	d3	no	no	no	NA	NA	NA
8/8/2013	11:21	d3	no	no	no	NA	NA	NA
8/8/2013	11:23	d3	no	no	no	NA	NA	NA
8/8/2013	11:25	d3	no	no	no	NA	NA	NA
8/16/2013	9:41	d3	no	no	no	NA	NA	NA
8/16/2013	9:43	d3	no	no	no	NA	NA	NA
8/16/2013	9:45	d3	no	no	no	NA	NA	NA
8/16/2013	9:47	d3	no	no	no	NA	NA	NA
8/16/2013	9:49	d3	no	no	no	NA	NA	NA
8/16/2013	10:56	d3	no	no	no	NA	NA	NA
8/16/2013	10:58	d3	no	no	no	NA	NA	NA
8/16/2013	11:02	d3	no	no	no	NA	NA	NA
8/23/2013	10:16	d3	no	no	no	NA	NA	NA
8/23/2013	10:21	d3	no	no	no	NA	NA	NA
8/23/2013	10:47	d3	no	no	no	NA	NA	NA
8/23/2013	10:49	d3	no	no	no	NA	NA	NA
8/23/2013	10:52	d3	no	no	no	NA	NA	NA
8/23/2013	10:54	d3	no	no	no	NA	NA	NA
8/28/2013	10:19	d3	no	no	no	NA	NA	NA
8/28/2013	10:45	d3	no	no	no	NA	NA	NA
8/28/2013	10:50	d3	no	no	no	NA	NA	NA
9/2/2013	10:07	d3	no	no	no	NA	NA	NA
9/2/2013	10:10	d3	no	no	no	NA	NA	NA
9/2/2013	10:14	d3	no	no	no	NA	NA	NA
9/2/2013	10:41	d3	no	no	no	NA	NA	NA
8/19/2013	11:13	e0	yes	no	no	46	NA	NA
8/26/2013	10:31	e0	yes	no	no	57	NA	NA
8/19/2013	10:20	e0	yes	no	no	68	NA	NA
8/6/2013	11:18	e0	yes	no	no	69	NA	NA
8/26/2013	10:55	e0	yes	no	no	74	NA	NA
8/20/2013	9:47	e0	yes	yes	yes	75	87	110
8/26/2013	10:52	e0	yes	no	no	85	NA	NA
9/9/2013	10:10	e0	yes	no	no	89	NA	NA
8/6/2013	10:03	e0	no	no	no	NA	NA	NA
8/6/2013	10:05	e0	no	no	no	NA	NA	NA
8/6/2013	10:07	e0	no	no	no	NA	NA	NA
8/6/2013	10:09	e0	no	no	no	NA	NA	NA
8/6/2013	10:11	e0	no	no	no	NA	NA	NA

8/6/2013	11:12	e0	no	no	no	NA	NA	NA
8/6/2013	11:14	e0	no	no	no	NA	NA	NA
8/6/2013	11:16	e0	no	no	no	NA	NA	NA
8/11/2013	9:42	e0	no	no	no	NA	NA	NA
8/11/2013	9:44	e0	no	no	no	NA	NA	NA
8/11/2013	9:46	e0	no	no	no	NA	NA	NA
8/11/2013	9:48	e0	no	no	no	NA	NA	NA
8/11/2013	9:50	e0	no	no	no	NA	NA	NA
8/11/2013	10:59	e0	no	no	no	NA	NA	NA
8/11/2013	11:01	e0	no	no	no	NA	NA	NA
8/11/2013	11:03	e0	no	no	no	NA	NA	NA
8/11/2013	11:05	e0	no	no	no	NA	NA	NA
8/13/2013	9:31	e0	no	no	no	NA	NA	NA
8/13/2013	9:33	e0	no	no	no	NA	NA	NA
8/13/2013	9:35	e0	no	no	no	NA	NA	NA
8/13/2013	9:37	e0	no	no	no	NA	NA	NA
8/13/2013	9:39	e0	no	no	no	NA	NA	NA
8/13/2013	10:50	e0	no	no	no	NA	NA	NA
8/13/2013	10:53	e0	no	no	no	NA	NA	NA
8/13/2013	10:55	e0	no	no	no	NA	NA	NA
8/13/2013	10:57	e0	no	no	no	NA	NA	NA
8/15/2013	9:33	e0	no	no	no	NA	NA	NA
8/15/2013	9:35	e0	no	no	no	NA	NA	NA
8/15/2013	9:37	e0	no	no	no	NA	NA	NA
8/15/2013	9:39	e0	no	no	no	NA	NA	NA
8/15/2013	9:42	e0	no	no	no	NA	NA	NA
8/15/2013	10:51	e0	no	no	no	NA	NA	NA
8/15/2013	10:53	e0	no	no	no	NA	NA	NA
8/15/2013	10:55	e0	no	no	no	NA	NA	NA
8/15/2013	10:57	e0	no	no	no	NA	NA	NA
8/16/2013	11:42	e0	no	no	no	NA	NA	NA
8/16/2013	11:44	e0	no	no	no	NA	NA	NA
8/16/2013	11:46	e0	no	no	no	NA	NA	NA
8/16/2013	11:48	e0	no	no	no	NA	NA	NA
8/19/2013	10:18	e0	no	no	no	NA	NA	NA
8/19/2013	10:22	e0	no	no	no	NA	NA	NA
8/19/2013	10:25	e0	no	no	no	NA	NA	NA
8/19/2013	10:27	e0	no	no	no	NA	NA	NA
8/19/2013	11:11	e0	no	no	no	NA	NA	NA
8/19/2013	11:16	e0	no	no	no	NA	NA	NA
8/19/2013	11:17	e0	no	no	no	NA	NA	NA
8/20/2013	9:37	e0	no	no	no	NA	NA	NA
8/20/2013	9:40	e0	no	no	no	NA	NA	NA
8/20/2013	9:42	e0	no	no	no	NA	NA	NA
8/20/2013	9:44	e0	no	no	no	NA	NA	NA
8/20/2013	11:24	e0	no	no	no	NA	NA	NA
8/20/2013	11:24	e0	no	no	no	NA	NA	NA
8/20/2013	11:26	e0	no	no	no	NA	NA	NA
8/20/2013	11:29	e0	no	no	no	NA	NA	NA
8/26/2013	10:33	e0	no	no	no	NA	NA	NA

8/26/2013	10:35	e0	no	no	no	NA	NA	NA
8/26/2013	10:38	e0	no	no	no	NA	NA	NA
8/26/2013	10:40	e0	no	no	no	NA	NA	NA
8/26/2013	10:57	e0	no	no	no	NA	NA	NA
8/26/2013	10:59	e0	no	no	no	NA	NA	NA
9/5/2013	10:18	e0	no	no	no	NA	NA	NA
9/5/2013	10:20	e0	no	no	no	NA	NA	NA
9/5/2013	10:23	e0	no	no	no	NA	NA	NA
9/5/2013	10:25	e0	no	no	no	NA	NA	NA
9/5/2013	10:27	e0	no	no	no	NA	NA	NA
9/5/2013	10:55	e0	no	no	no	NA	NA	NA
9/5/2013	10:57	e0	no	no	no	NA	NA	NA
9/5/2013	11:00	e0	no	no	no	NA	NA	NA
9/5/2013	11:02	e0	no	no	no	NA	NA	NA
9/9/2013	10:05	e0	no	no	no	NA	NA	NA
9/9/2013	10:07	e0	no	no	no	NA	NA	NA
9/9/2013	10:12	e0	no	no	no	NA	NA	NA
9/9/2013	10:14	e0	no	no	no	NA	NA	NA
9/9/2013	10:50	e0	no	no	no	NA	NA	NA
9/9/2013	10:53	e0	no	no	no	NA	NA	NA
9/9/2013	10:55	e0	no	no	no	NA	NA	NA
9/9/2013	10:58	e0	no	no	no	NA	NA	NA
8/14/2013	9:31	e1	yes	no	no	3	NA	NA
8/20/2013	11:00	e1	yes	no	no	3	NA	NA
9/6/2013	9:38	e1	yes	no	no	3	NA	NA
8/20/2013	10:34	e1	yes	no	no	5	NA	NA
8/20/2013	10:39	e1	yes	no	no	6	NA	NA
8/19/2013	11:03	e1	yes	no	no	30	NA	NA
8/29/2013	9:28	e1	yes	yes	yes	30	32	41
8/19/2013	10:44	e1	yes	no	no	32	NA	NA
9/6/2013	11:02	e1	yes	yes	yes	34	111	120
9/3/2013	11:26	e1	yes	no	no	41	NA	NA
9/3/2013	11:24	e1	yes	no	no	64	NA	NA
8/29/2013	11:30	e1	yes	no	no	72	NA	NA
8/20/2013	10:31	e1	yes	no	no	80	NA	NA
9/3/2013	9:31	e1	yes	yes	yes	94	95	103
9/11/2013	10:27	e1	yes	no	no	97	NA	NA
8/19/2013	10:42	e1	yes	yes	yes	106	107	118
8/19/2013	10:46	e1	yes	no	no	107	NA	NA
8/14/2013	10:45	e1	yes	yes	yes	110	113	118
9/6/2013	9:35	e1	yes	no	no	115	NA	NA
9/6/2013	11:00	e1	yes	no	no	115	NA	NA
8/14/2013	9:35	e1	yes	no	no	117	NA	NA
9/12/2013	9:37	e1	yes	no	no	120	NA	NA
8/8/2013	10:27	e1	no	no	no	NA	NA	NA
8/8/2013	10:29	e1	no	no	no	NA	NA	NA
8/8/2013	10:31	e1	no	no	no	NA	NA	NA
8/8/2013	10:33	e1	no	no	no	NA	NA	NA
8/8/2013	10:35	e1	no	no	no	NA	NA	NA
8/8/2013	11:28	e1	no	no	no	NA	NA	NA

8/8/2013	11:30	e1	no	no	no	NA	NA	NA
8/8/2013	11:32	e1	no	no	no	NA	NA	NA
8/8/2013	11:34	e1	no	no	no	NA	NA	NA
8/12/2013	10:04	e1	no	no	no	NA	NA	NA
8/12/2013	10:06	e1	no	no	no	NA	NA	NA
8/12/2013	10:08	e1	no	no	no	NA	NA	NA
8/12/2013	10:10	e1	no	no	no	NA	NA	NA
8/12/2013	10:13	e1	no	no	no	NA	NA	NA
8/12/2013	11:10	e1	no	no	no	NA	NA	NA
8/12/2013	11:12	e1	no	no	no	NA	NA	NA
8/12/2013	11:14	e1	no	no	no	NA	NA	NA
8/12/2013	11:16	e1	no	no	no	NA	NA	NA
8/14/2013	9:33	e1	no	no	no	NA	NA	NA
8/14/2013	9:37	e1	no	no	no	NA	NA	NA
8/14/2013	9:39	e1	no	no	no	NA	NA	NA
8/14/2013	10:39	e1	no	no	no	NA	NA	NA
8/14/2013	10:41	e1	no	no	no	NA	NA	NA
8/14/2013	10:43	e1	no	no	no	NA	NA	NA
8/15/2013	9:45	e1	no	no	no	NA	NA	NA
8/15/2013	9:47	e1	no	no	no	NA	NA	NA
8/15/2013	9:49	e1	no	no	no	NA	NA	NA
8/15/2013	9:50	e1	no	no	no	NA	NA	NA
8/15/2013	9:53	e1	no	no	no	NA	NA	NA
8/15/2013	11:01	e1	no	no	no	NA	NA	NA
8/15/2013	11:03	e1	no	no	no	NA	NA	NA
8/15/2013	11:05	e1	no	no	no	NA	NA	NA
8/15/2013	11:07	e1	no	no	no	NA	NA	NA
8/16/2013	9:30	e1	no	no	no	NA	NA	NA
8/16/2013	9:32	e1	no	no	no	NA	NA	NA
8/16/2013	9:34	e1	no	no	no	NA	NA	NA
8/16/2013	9:36	e1	no	no	no	NA	NA	NA
8/16/2013	9:38	e1	no	no	no	NA	NA	NA
8/16/2013	10:47	e1	no	no	no	NA	NA	NA
8/16/2013	10:49	e1	no	no	no	NA	NA	NA
8/16/2013	10:51	e1	no	no	no	NA	NA	NA
8/16/2013	10:53	e1	no	no	no	NA	NA	NA
8/19/2013	10:49	e1	no	no	no	NA	NA	NA
8/19/2013	10:51	e1	no	no	no	NA	NA	NA
8/19/2013	11:00	e1	no	no	no	NA	NA	NA
8/19/2013	11:05	e1	no	no	no	NA	NA	NA
8/19/2013	11:08	e1	no	no	no	NA	NA	NA
8/20/2013	10:29	e1	no	no	no	NA	NA	NA
8/20/2013	10:36	e1	no	no	no	NA	NA	NA
8/20/2013	10:55	e1	no	no	no	NA	NA	NA
8/20/2013	10:57	e1	no	no	no	NA	NA	NA
8/20/2013	11:02	e1	no	no	no	NA	NA	NA
8/29/2013	9:29	e1	no	no	no	NA	NA	NA
8/29/2013	9:32	e1	no	no	no	NA	NA	NA
8/29/2013	9:34	e1	no	no	no	NA	NA	NA
8/29/2013	9:36	e1	no	no	no	NA	NA	NA

8/29/2013	11:23	e1	no	no	no	NA	NA	NA
8/29/2013	11:26	e1	no	no	no	NA	NA	NA
8/29/2013	11:28	e1	no	no	no	NA	NA	NA
9/3/2013	9:28	e1	no	no	no	NA	NA	NA
9/3/2013	9:33	e1	no	no	no	NA	NA	NA
9/3/2013	9:35	e1	no	no	no	NA	NA	NA
9/3/2013	9:38	e1	no	no	no	NA	NA	NA
9/3/2013	11:19	e1	no	no	no	NA	NA	NA
9/3/2013	11:21	e1	no	no	no	NA	NA	NA
9/6/2013	9:30	e1	no	no	no	NA	NA	NA
9/6/2013	9:32	e1	no	no	no	NA	NA	NA
9/6/2013	9:40	e1	no	no	no	NA	NA	NA
9/6/2013	10:58	e1	no	no	no	NA	NA	NA
9/6/2013	11:05	e1	no	no	no	NA	NA	NA
9/11/2013	10:25	e1	no	no	no	NA	NA	NA
9/11/2013	10:29	e1	no	no	no	NA	NA	NA
9/11/2013	10:31	e1	no	no	no	NA	NA	NA
9/11/2013	10:33	e1	no	no	no	NA	NA	NA
9/11/2013	11:41	e1	no	no	no	NA	NA	NA
9/11/2013	11:42	e1	no	no	no	NA	NA	NA
9/11/2013	11:45	e1	no	no	no	NA	NA	NA
9/11/2013	11:47	e1	no	no	no	NA	NA	NA
9/12/2013	9:35	e1	no	no	no	NA	NA	NA
9/12/2013	9:39	e1	no	no	no	NA	NA	NA
9/12/2013	9:41	e1	no	no	no	NA	NA	NA
9/12/2013	9:44	e1	no	no	no	NA	NA	NA
9/12/2013	10:57	e1	no	no	no	NA	NA	NA
9/12/2013	11:00	e1	no	no	no	NA	NA	NA
9/12/2013	11:02	e1	no	no	no	NA	NA	NA
9/12/2013	11:04	e1	no	no	no	NA	NA	NA
8/19/2013	9:55	e2	yes	yes	yes	2	4	10
8/19/2013	9:57	e2	yes	no	no	5	NA	NA
8/6/2013	9:53	e2	yes	yes	yes	15	39	50
8/22/2013	11:29	e2	yes	no	no	16	NA	NA
9/10/2013	9:52	e2	yes	no	no	19	NA	NA
9/4/2013	11:30	e2	yes	yes	yes	21	35	48
8/28/2013	11:09	e2	yes	no	no	27	NA	NA
8/22/2013	9:41	e2	yes	no	no	28	NA	NA
8/22/2013	9:46	e2	yes	yes	yes	38	75	88
9/10/2013	11:13	e2	yes	yes	yes	42	98	109
8/6/2013	11:03	e2	yes	yes	yes	45	91	98
8/19/2013	10:56	e2	yes	no	no	46	NA	NA
9/4/2013	11:27	e2	yes	no	no	55	NA	NA
8/19/2013	10:00	e2	yes	no	no	68	NA	NA
8/22/2013	11:22	e2	yes	yes	yes	68	105	119
9/4/2013	9:47	e2	yes	no	no	71	NA	NA
8/19/2013	10:58	e2	yes	no	no	75	NA	NA
8/19/2013	10:02	e2	yes	no	no	82	NA	NA
8/6/2013	9:54	e2	yes	no	no	84	NA	NA
8/28/2013	11:06	e2	yes	no	no	95	NA	NA

9/4/2013	9:53	e2	yes	yes	yes	102	106	112
8/22/2013	11:24	e2	yes	no	no	105	NA	NA
8/6/2013	9:58	e2	yes	no	no	108	NA	NA
8/22/2013	9:47	e2	yes	no	no	110	NA	NA
8/22/2013	9:50	e2	yes	no	no	111	NA	NA
8/6/2013	9:56	e2	yes	no	no	115	NA	NA
8/6/2013	11:09	e2	yes	no	no	115	NA	NA
8/19/2013	9:52	e2	yes	no	no	119	NA	NA
8/6/2013	10:00	e2	no	no	no	NA	NA	NA
8/6/2013	11:05	e2	no	no	no	NA	NA	NA
8/6/2013	11:07	e2	no	no	no	NA	NA	NA
8/12/2013	10:16	e2	no	no	no	NA	NA	NA
8/12/2013	10:18	e2	no	no	no	NA	NA	NA
8/12/2013	10:20	e2	no	no	no	NA	NA	NA
8/12/2013	10:22	e2	no	no	no	NA	NA	NA
8/12/2013	10:24	e2	no	no	no	NA	NA	NA
8/14/2013	9:42	e2	no	no	no	NA	NA	NA
8/14/2013	9:45	e2	no	no	no	NA	NA	NA
8/14/2013	9:47	e2	no	no	no	NA	NA	NA
8/14/2013	9:49	e2	no	no	no	NA	NA	NA
8/14/2013	9:51	e2	no	no	no	NA	NA	NA
8/14/2013	10:48	e2	no	no	no	NA	NA	NA
8/14/2013	10:51	e2	no	no	no	NA	NA	NA
8/14/2013	10:53	e2	no	no	no	NA	NA	NA
8/14/2013	10:55	e2	no	no	no	NA	NA	NA
8/15/2013	9:56	e2	no	no	no	NA	NA	NA
8/15/2013	9:58	e2	no	no	no	NA	NA	NA
8/15/2013	10:00	e2	no	no	no	NA	NA	NA
8/15/2013	10:02	e2	no	no	no	NA	NA	NA
8/15/2013	10:04	e2	no	no	no	NA	NA	NA
8/15/2013	11:11	e2	no	no	no	NA	NA	NA
8/15/2013	11:13	e2	no	no	no	NA	NA	NA
8/15/2013	11:15	e2	no	no	no	NA	NA	NA
8/15/2013	11:17	e2	no	no	no	NA	NA	NA
8/19/2013	9:55	e2	no	no	no	NA	NA	NA
8/19/2013	10:54	e2	no	no	no	NA	NA	NA
8/22/2013	9:44	e2	no	no	no	NA	NA	NA
8/22/2013	11:27	e2	no	no	no	NA	NA	NA
8/28/2013	11:04	e2	no	no	no	NA	NA	NA
9/4/2013	9:44	e2	no	no	no	NA	NA	NA
9/4/2013	9:49	e2	no	no	no	NA	NA	NA
9/4/2013	9:55	e2	no	no	no	NA	NA	NA
9/4/2013	11:25	e2	no	no	no	NA	NA	NA
9/4/2013	11:31	e2	no	no	no	NA	NA	NA
9/10/2013	9:48	e2	no	no	no	NA	NA	NA
9/10/2013	9:50	e2	no	no	no	NA	NA	NA
9/10/2013	9:55	e2	no	no	no	NA	NA	NA
9/10/2013	9:58	e2	no	no	no	NA	NA	NA
9/10/2013	11:08	e2	no	no	no	NA	NA	NA
9/10/2013	11:10	e2	no	no	no	NA	NA	NA

9/10/2013	11:15	e2	no	no	no	NA	NA	NA
9/4/2013	10:55	e3	yes	yes	yes	1	2	8
8/23/2013	9:43	e3	yes	yes	yes	15	25	38
8/23/2013	9:35	e3	yes	no	no	17	NA	NA
9/4/2013	10:31	e3	yes	no	no	18	NA	NA
8/19/2013	11:38	e3	yes	no	no	19	NA	NA
9/2/2013	10:33	e3	yes	yes	yes	22	67	79
8/28/2013	10:12	e3	yes	yes	yes	23	82	97
8/28/2013	10:07	e3	yes	yes	yes	24	32	70
8/28/2013	10:09	e3	yes	no	no	28	NA	NA
8/6/2013	9:33	e3	yes	no	no	31	NA	NA
9/2/2013	10:31	e3	yes	no	no	32	NA	NA
8/19/2013	11:33	e3	yes	no	no	48	NA	NA
8/27/2013	10:17	e3	yes	no	no	48	NA	NA
8/15/2013	10:13	e3	yes	no	no	50	NA	NA
9/2/2013	10:37	e3	yes	no	no	52	NA	NA
9/4/2013	10:57	e3	yes	no	no	59	NA	NA
9/2/2013	11:01	e3	yes	no	no	64	NA	NA
8/28/2013	10:05	e3	yes	no	no	70	NA	NA
9/5/2013	10:38	e3	yes	no	no	77	NA	NA
9/5/2013	10:10	e3	yes	no	no	96	NA	NA
9/2/2013	11:04	e3	yes	yes	yes	99	102	109
9/11/2013	9:56	e3	yes	no	no	99	NA	NA
8/27/2013	10:10	e3	yes	yes	yes	102	108	120
9/5/2013	10:05	e3	yes	no	no	110	NA	NA
8/19/2013	10:12	e3	yes	no	no	119	NA	NA
8/6/2013	9:30	e3	no	no	no	NA	NA	NA
8/6/2013	9:35	e3	no	no	no	NA	NA	NA
8/6/2013	9:37	e3	no	no	no	NA	NA	NA
8/6/2013	9:39	e3	no	no	no	NA	NA	NA
8/6/2013	10:44	e3	no	no	no	NA	NA	NA
8/6/2013	10:46	e3	no	no	no	NA	NA	NA
8/6/2013	10:48	e3	no	no	no	NA	NA	NA
8/6/2013	10:50	e3	no	no	no	NA	NA	NA
8/11/2013	9:53	e3	no	no	no	NA	NA	NA
8/11/2013	9:55	e3	no	no	no	NA	NA	NA
8/11/2013	9:57	e3	no	no	no	NA	NA	NA
8/11/2013	9:59	e3	no	no	no	NA	NA	NA
8/11/2013	10:02	e3	no	no	no	NA	NA	NA
8/11/2013	11:08	e3	no	no	no	NA	NA	NA
8/11/2013	11:10	e3	no	no	no	NA	NA	NA
8/11/2013	11:13	e3	no	no	no	NA	NA	NA
8/11/2013	11:15	e3	no	no	no	NA	NA	NA
8/12/2013	11:19	e3	no	no	no	NA	NA	NA
8/12/2013	11:22	e3	no	no	no	NA	NA	NA
8/12/2013	11:24	e3	no	no	no	NA	NA	NA
8/12/2013	11:26	e3	no	no	no	NA	NA	NA
8/13/2013	10:05	e3	no	no	no	NA	NA	NA
8/13/2013	10:07	e3	no	no	no	NA	NA	NA
8/13/2013	10:09	e3	no	no	no	NA	NA	NA

8/13/2013	10:12	e3	no	no	no	NA	NA	NA
8/13/2013	10:14	e3	no	no	no	NA	NA	NA
8/13/2013	11:19	e3	no	no	no	NA	NA	NA
8/13/2013	11:21	e3	no	no	no	NA	NA	NA
8/13/2013	11:23	e3	no	no	no	NA	NA	NA
8/13/2013	11:25	e3	no	no	no	NA	NA	NA
8/15/2013	10:07	e3	no	no	no	NA	NA	NA
8/15/2013	10:09	e3	no	no	no	NA	NA	NA
8/15/2013	10:11	e3	no	no	no	NA	NA	NA
8/15/2013	10:15	e3	no	no	no	NA	NA	NA
8/15/2013	11:20	e3	no	no	no	NA	NA	NA
8/15/2013	11:22	e3	no	no	no	NA	NA	NA
8/15/2013	11:24	e3	no	no	no	NA	NA	NA
8/15/2013	11:26	e3	no	no	no	NA	NA	NA
8/19/2013	10:05	e3	no	no	no	NA	NA	NA
8/19/2013	10:08	e3	no	no	no	NA	NA	NA
8/19/2013	10:10	e3	no	no	no	NA	NA	NA
8/19/2013	10:15	e3	no	no	no	NA	NA	NA
8/19/2013	11:31	e3	no	no	no	NA	NA	NA
8/19/2013	11:35	e3	no	no	no	NA	NA	NA
8/23/2013	9:33	e3	no	no	no	NA	NA	NA
8/23/2013	9:38	e3	no	no	no	NA	NA	NA
8/23/2013	9:40	e3	no	no	no	NA	NA	NA
8/23/2013	11:15	e3	no	no	no	NA	NA	NA
8/23/2013	11:17	e3	no	no	no	NA	NA	NA
8/23/2013	11:19	e3	no	no	no	NA	NA	NA
8/23/2013	11:22	e3	no	no	no	NA	NA	NA
8/27/2013	10:12	e3	no	no	no	NA	NA	NA
8/27/2013	10:14	e3	no	no	no	NA	NA	NA
8/27/2013	10:19	e3	no	no	no	NA	NA	NA
8/27/2013	10:43	e3	no	no	no	NA	NA	NA
8/27/2013	10:46	e3	no	no	no	NA	NA	NA
8/27/2013	10:48	e3	no	no	no	NA	NA	NA
8/27/2013	10:50	e3	no	no	no	NA	NA	NA
8/28/2013	10:00	e3	no	no	no	NA	NA	NA
8/28/2013	10:02	e3	no	no	no	NA	NA	NA
9/2/2013	10:29	e3	no	no	no	NA	NA	NA
9/2/2013	10:35	e3	no	no	no	NA	NA	NA
9/2/2013	10:59	e3	no	no	no	NA	NA	NA
9/2/2013	11:06	e3	no	no	no	NA	NA	NA
9/4/2013	10:30	e3	no	no	no	NA	NA	NA
9/4/2013	10:34	e3	no	no	no	NA	NA	NA
9/4/2013	10:36	e3	no	no	no	NA	NA	NA
9/4/2013	10:37	e3	no	no	no	NA	NA	NA
9/4/2013	10:59	e3	no	no	no	NA	NA	NA
9/4/2013	11:01	e3	no	no	no	NA	NA	NA
9/5/2013	10:08	e3	no	no	no	NA	NA	NA
9/5/2013	10:13	e3	no	no	no	NA	NA	NA
9/5/2013	10:15	e3	no	no	no	NA	NA	NA
9/5/2013	10:40	e3	no	no	no	NA	NA	NA

9/5/2013	10:42	e3	no	no	no	NA	NA	NA
9/5/2013	10:45	e3	no	no	no	NA	NA	NA
9/11/2013	9:52	e3	no	no	no	NA	NA	NA
9/11/2013	9:54	e3	no	no	no	NA	NA	NA
9/11/2013	9:59	e3	no	no	no	NA	NA	NA
9/11/2013	10:01	e3	no	no	no	NA	NA	NA
9/11/2013	11:02	e3	no	no	no	NA	NA	NA
9/11/2013	11:04	e3	no	no	no	NA	NA	NA
9/11/2013	11:06	e3	no	no	no	NA	NA	NA
9/11/2013	11:08	e3	no	no	no	NA	NA	NA
7/13/2013	11:49	hex	no	no	no	NA	NA	NA
7/13/2013	11:51	hex	no	no	no	NA	NA	NA
7/14/2013	11:37	hex	no	no	no	NA	NA	NA
7/26/2013	11:43	hex	no	no	no	NA	NA	NA
7/26/2013	11:45	hex	no	no	no	NA	NA	NA
8/19/2013	11:53	hex	no	no	no	NA	NA	NA
8/19/2013	11:56	hex	no	no	no	NA	NA	NA
8/20/2013	12:00	hex	no	no	no	NA	NA	NA
8/22/2013	11:41	hex	no	no	no	NA	NA	NA
8/23/2013	11:34	hex	no	no	no	NA	NA	NA
8/23/2013	11:37	hex	no	no	no	NA	NA	NA
8/26/2013	11:39	hex	no	no	no	NA	NA	NA
8/26/2013	11:42	hex	no	no	no	NA	NA	NA
8/27/2013	11:37	hex	no	no	no	NA	NA	NA
8/27/2013	11:40	hex	no	no	no	NA	NA	NA
8/28/2013	11:46	hex	no	no	no	NA	NA	NA
8/28/2013	11:49	hex	no	no	no	NA	NA	NA
8/29/2013	11:33	hex	no	no	no	NA	NA	NA
8/29/2013	11:36	hex	no	no	no	NA	NA	NA
8/29/2013	11:38	hex	no	no	no	NA	NA	NA
8/29/2013	11:41	hex	no	no	no	NA	NA	NA
9/2/2013	11:37	hex	no	no	no	NA	NA	NA
9/2/2013	11:39	hex	no	no	no	NA	NA	NA
9/2/2013	11:42	hex	no	no	no	NA	NA	NA
9/2/2013	11:44	hex	no	no	no	NA	NA	NA
9/3/2013	11:37	hex	no	no	no	NA	NA	NA
9/3/2013	11:39	hex	no	no	no	NA	NA	NA
9/3/2013	11:42	hex	no	no	no	NA	NA	NA
9/3/2013	11:44	hex	no	no	no	NA	NA	NA
9/4/2013	11:34	hex	no	no	no	NA	NA	NA
9/4/2013	11:37	hex	no	no	no	NA	NA	NA
9/4/2013	11:40	hex	no	no	no	NA	NA	NA
9/4/2013	11:42	hex	no	no	no	NA	NA	NA
9/5/2013	11:34	hex	no	no	no	NA	NA	NA
9/5/2013	11:37	hex	no	no	no	NA	NA	NA
9/5/2013	11:40	hex	no	no	no	NA	NA	NA
9/5/2013	11:42	hex	no	no	no	NA	NA	NA
9/6/2013	11:44	hex	no	no	no	NA	NA	NA
9/6/2013	11:46	hex	no	no	no	NA	NA	NA
9/6/2013	11:49	hex	no	no	no	NA	NA	NA

9/6/2013	11:51	hex	no	no	no	NA	NA	NA
9/9/2013	11:41	hex	no	no	no	NA	NA	NA
9/9/2013	11:44	hex	no	no	no	NA	NA	NA
9/9/2013	11:46	hex	no	no	no	NA	NA	NA
9/9/2013	11:49	hex	no	no	no	NA	NA	NA
9/11/2013	11:50	hex	no	no	no	NA	NA	NA
9/11/2013	11:52	hex	no	no	no	NA	NA	NA
9/11/2013	11:55	hex	no	no	no	NA	NA	NA
9/11/2013	11:57	hex	no	no	no	NA	NA	NA
7/8/2013	11:36	opt	yes	yes	yes	1	34	43
8/8/2013	10:38	opt	yes	no	no	1	NA	NA
8/19/2013	9:46	opt	yes	no	no	1	NA	NA
9/4/2013	10:11	opt	yes	yes	yes	1	9	14
9/4/2013	10:39	opt	yes	yes	yes	1	2	5
7/14/2013	9:52	opt	yes	no	no	2	NA	NA
7/18/2013	10:35	opt	yes	yes	yes	2	3	8
8/8/2013	10:43	opt	yes	yes	yes	2	45	50
7/31/2013	11:53	opt	yes	yes	yes	3	5	9
8/8/2013	11:37	opt	yes	yes	yes	3	4	8
8/12/2013	10:42	opt	yes	yes	yes	3	60	19
8/13/2013	10:41	opt	yes	yes	yes	3	58	82
7/14/2013	9:54	opt	yes	yes	yes	5	6	13
8/23/2013	9:48	opt	yes	yes	yes	7	26	57
7/14/2013	9:55	opt	yes	yes	yes	8	9	15
7/14/2013	9:56	opt	yes	yes	yes	9	15	22
9/4/2013	10:13	opt	yes	yes	yes	11	60	68
9/5/2013	10:31	opt	yes	yes	yes	11	71	80
8/8/2013	10:40	opt	yes	yes	yes	13	13	16
8/23/2013	9:47	opt	yes	yes	yes	14	17	25
8/23/2013	10:57	opt	yes	yes	yes	14	60	70
7/17/2013	10:43	opt	yes	yes	yes	15	28	33
7/25/2013	10:33	opt	yes	yes	yes	17	66	70
9/5/2013	10:52	opt	yes	yes	yes	17	18	23
7/12/2013	10:12	opt	yes	yes	yes	18	21	27
7/14/2013	9:07	opt	yes	yes	yes	18	19	36
7/25/2013	10:37	opt	yes	yes	yes	18	19	24
9/5/2013	10:33	opt	yes	yes	yes	19	20	27
7/18/2013	11:38	opt	yes	yes	yes	20	43	48
9/5/2013	10:36	opt	yes	yes	yes	20	22	26
7/17/2013	11:44	opt	yes	yes	yes	21	88	99
9/4/2013	10:11	opt	yes	yes	yes	21	68	73
8/23/2013	9:45	opt	yes	yes	yes	22	27	32
8/23/2013	11:02	opt	yes	yes	yes	24	25	36
7/17/2013	10:36	opt	yes	no	no	25	NA	NA
7/17/2013	10:44	opt	yes	yes	yes	25	93	98
8/23/2013	9:46	opt	yes	yes	yes	25	29	35
7/25/2013	10:35	opt	yes	yes	yes	28	36	40
9/5/2013	10:53	opt	yes	yes	yes	29	31	36
7/14/2013	10:42	opt	yes	yes	yes	30	30	33
7/18/2013	11:33	opt	yes	yes	yes	30	30	55

8/13/2013	11:47	opt	yes	yes	yes	30	31	37
9/4/2013	10:15	opt	yes	yes	yes	30	33	39
7/18/2013	10:39	opt	yes	yes	yes	31	89	92
9/5/2013	10:30	opt	yes	yes	yes	31	32	36
8/19/2013	9:48	opt	yes	yes	yes	33	37	47
8/14/2013	11:34	opt	yes	yes	yes	34	35	44
7/14/2013	10:48	opt	yes	yes	yes	35	37	44
8/23/2013	11:01	opt	yes	yes	yes	35	57	61
8/23/2013	9:50	opt	yes	yes	yes	36	40	46
8/6/2013	11:40	opt	yes	yes	yes	37	38	42
8/14/2013	10:34	opt	yes	no	no	37	NA	NA
8/8/2013	10:41	opt	yes	yes	yes	39	39	65
8/12/2013	10:40	opt	yes	yes	yes	39	40	44
7/8/2013	11:39	opt	yes	yes	yes	40	42	49
7/18/2013	11:37	opt	yes	yes	yes	40	41	44
8/14/2013	10:32	opt	yes	yes	yes	41	75	81
7/12/2013	11:19	opt	yes	yes	yes	43	51	61
8/12/2013	11:40	opt	yes	yes	yes	44	45	51
8/19/2013	9:49	opt	yes	yes	yes	44	51	60
7/12/2013	10:08	opt	yes	yes	yes	45	47	55
9/4/2013	10:43	opt	yes	yes	yes	47	49	52
8/14/2013	10:31	opt	yes	yes	yes	51	60	65
8/23/2013	10:59	opt	yes	yes	yes	51	56	64
7/31/2013	10:50	opt	yes	yes	yes	52	52	57
8/19/2013	11:49	opt	yes	yes	yes	53	70	79
7/14/2013	10:40	opt	yes	yes	yes	54	55	58
7/17/2013	10:41	opt	yes	yes	yes	55	63	70
9/4/2013	10:09	opt	yes	yes	yes	57	59	63
9/5/2013	10:48	opt	yes	yes	yes	57	77	82
7/17/2013	11:41	opt	yes	yes	yes	58	63	72
7/31/2013	11:20	opt	yes	yes	yes	59	79	83
8/19/2013	11:51	opt	yes	yes	yes	59	60	69
7/12/2013	10:15	opt	yes	no	no	60	NA	NA
7/17/2013	10:38	opt	yes	no	no	60	NA	NA
8/6/2013	10:40	opt	yes	yes	yes	63	64	68
9/4/2013	10:41	opt	yes	yes	yes	63	68	79
7/18/2013	10:36	opt	yes	yes	yes	66	71	82
7/31/2013	10:47	opt	yes	yes	yes	66	104	107
9/4/2013	10:45	opt	yes	yes	yes	68	69	73
8/6/2013	10:38	opt	yes	yes	yes	69	88	95
7/25/2013	11:29	opt	yes	yes	yes	70	70	77
7/18/2013	10:41	opt	yes	yes	yes	71	84	89
7/17/2013	11:47	opt	yes	yes	yes	72	111	117
7/8/2013	10:31	opt	yes	yes	yes	73	75	83
8/14/2013	10:36	opt	yes	no	no	74	NA	NA
7/8/2013	10:27	opt	yes	yes	yes	75	75	82
9/5/2013	10:34	opt	yes	yes	yes	75	80	87
7/8/2013	11:33	opt	yes	yes	yes	78	101	110
7/25/2013	10:28	opt	yes	yes	yes	81	84	88
7/17/2013	11:38	opt	yes	yes	yes	83	84	92

7/14/2013	10:43	opt	yes	yes	yes	88	89	96
8/12/2013	11:38	opt	yes	yes	yes	88	89	95
7/18/2013	11:35	opt	yes	yes	yes	93	94	101
7/8/2013	10:29	opt	yes	no	no	97	NA	NA
7/25/2013	11:31	opt	yes	yes	yes	97	98	103
7/25/2013	11:36	opt	yes	yes	yes	98	100	108
7/12/2013	11:14	opt	yes	yes	yes	100	103	110
7/25/2013	11:33	opt	yes	yes	yes	103	105	110
7/12/2013	10:13	opt	yes	no	no	115	NA	NA
8/13/2013	10:43	opt	yes	no	no	117	NA	NA
7/8/2013	10:34	opt	no	no	no	NA	NA	NA
7/8/2013	10:37	opt	no	no	no	NA	NA	NA
7/8/2013	11:37	opt	no	no	no	NA	NA	NA
7/12/2013	10:09	opt	no	no	no	NA	NA	NA
7/12/2013	11:17	opt	no	no	no	NA	NA	NA
7/12/2013	11:21	opt	no	no	no	NA	NA	NA
7/14/2013	10:45	opt	no	no	no	NA	NA	NA
7/18/2013	10:32	opt	no	no	no	NA	NA	NA
7/25/2013	10:31	opt	no	no	no	NA	NA	NA
7/31/2013	10:45	opt	no	no	no	NA	NA	NA
8/6/2013	10:41	opt	no	no	no	NA	NA	NA
8/6/2013	11:42	opt	no	no	no	NA	NA	NA
8/12/2013	10:38	opt	no	no	no	NA	NA	NA
8/13/2013	10:45	opt	no	no	no	NA	NA	NA
8/13/2013	10:47	opt	no	no	no	NA	NA	NA
9/5/2013	10:50	opt	no	no	no	NA	NA	NA
7/12/2013	9:40	plant	yes	no	no	3	NA	NA
7/12/2013	9:38	plant	yes	no	no	110	NA	NA
7/8/2013	10:03	plant	no	no	no	NA	NA	NA
7/8/2013	10:05	plant	no	no	no	NA	NA	NA
7/8/2013	10:08	plant	no	no	no	NA	NA	NA
7/8/2013	10:10	plant	no	no	no	NA	NA	NA
7/8/2013	10:12	plant	no	no	no	NA	NA	NA
7/8/2013	11:14	plant	no	no	no	NA	NA	NA
7/8/2013	11:16	plant	no	no	no	NA	NA	NA
7/8/2013	11:18	plant	no	no	no	NA	NA	NA
7/8/2013	11:20	plant	no	no	no	NA	NA	NA
7/12/2013	9:30	plant	no	no	no	NA	NA	NA
7/12/2013	9:33	plant	no	no	no	NA	NA	NA
7/12/2013	9:35	plant	no	no	no	NA	NA	NA
7/12/2013	10:44	plant	no	no	no	NA	NA	NA
7/12/2013	10:47	plant	no	no	no	NA	NA	NA
7/12/2013	10:49	plant	no	no	no	NA	NA	NA
7/12/2013	10:51	plant	no	no	no	NA	NA	NA
7/14/2013	9:30	plant	no	no	no	NA	NA	NA
7/14/2013	9:32	plant	no	no	no	NA	NA	NA
7/14/2013	9:34	plant	no	no	no	NA	NA	NA
7/14/2013	9:37	plant	no	no	no	NA	NA	NA
7/14/2013	9:39	plant	no	no	no	NA	NA	NA
7/14/2013	11:25	plant	no	no	no	NA	NA	NA

7/14/2013	11:27	plant	no	no	no	NA	NA	NA
7/14/2013	11:29	plant	no	no	no	NA	NA	NA
7/14/2013	11:32	plant	no	no	no	NA	NA	NA
7/14/2013	11:34	plant	no	no	no	NA	NA	NA
7/16/2013	9:40	plant	no	no	no	NA	NA	NA
7/16/2013	9:42	plant	no	no	no	NA	NA	NA
7/16/2013	9:44	plant	no	no	no	NA	NA	NA
7/16/2013	9:47	plant	no	no	no	NA	NA	NA
7/16/2013	9:49	plant	no	no	no	NA	NA	NA
7/16/2013	10:50	plant	no	no	no	NA	NA	NA
7/16/2013	10:52	plant	no	no	no	NA	NA	NA
7/16/2013	10:55	plant	no	no	no	NA	NA	NA
7/16/2013	10:57	plant	no	no	no	NA	NA	NA
7/19/2013	9:30	plant	no	no	no	NA	NA	NA
7/19/2013	9:32	plant	no	no	no	NA	NA	NA
7/19/2013	9:35	plant	no	no	no	NA	NA	NA
7/19/2013	9:37	plant	no	no	no	NA	NA	NA
7/19/2013	9:39	plant	no	no	no	NA	NA	NA
7/19/2013	10:40	plant	no	no	no	NA	NA	NA
7/19/2013	10:42	plant	no	no	no	NA	NA	NA
7/19/2013	10:44	plant	no	no	no	NA	NA	NA
7/19/2013	10:46	plant	no	no	no	NA	NA	NA
7/24/2013	9:37	plant	no	no	no	NA	NA	NA
7/24/2013	9:39	plant	no	no	no	NA	NA	NA
7/24/2013	9:41	plant	no	no	no	NA	NA	NA
7/24/2013	9:43	plant	no	no	no	NA	NA	NA
7/24/2013	9:45	plant	no	no	no	NA	NA	NA
7/24/2013	10:48	plant	no	no	no	NA	NA	NA
7/24/2013	10:50	plant	no	no	no	NA	NA	NA
7/24/2013	10:52	plant	no	no	no	NA	NA	NA
7/24/2013	10:54	plant	no	no	no	NA	NA	NA
8/20/2013	9:27	plant	no	no	no	NA	NA	NA
8/20/2013	9:29	plant	no	no	no	NA	NA	NA
8/20/2013	9:31	plant	no	no	no	NA	NA	NA
8/20/2013	9:33	plant	no	no	no	NA	NA	NA
8/20/2013	9:35	plant	no	no	no	NA	NA	NA
8/20/2013	11:50	plant	no	no	no	NA	NA	NA
8/20/2013	11:52	plant	no	no	no	NA	NA	NA
8/20/2013	11:55	plant	no	no	no	NA	NA	NA
8/20/2013	11:57	plant	no	no	no	NA	NA	NA
7/13/2013	10:22	sub	yes	no	no	12	NA	NA
8/27/2013	11:22	sub	yes	no	no	17	NA	NA
7/17/2013	9:50	sub	yes	no	no	18	NA	NA
8/27/2013	11:24	sub	yes	yes	yes	23	46	66
8/27/2013	9:46	sub	yes	yes	yes	26	28	45
7/14/2013	9:41	sub	yes	yes	yes	35	36	42
8/27/2013	9:54	sub	yes	no	no	40	NA	NA
7/17/2013	10:57	sub	yes	no	no	45	NA	NA
7/24/2013	9:50	sub	yes	yes	yes	60	61	67
7/8/2013	11:04	sub	yes	yes	yes	64	73	78

7/14/2013	9:49	sub	yes	no	no	73	NA	NA
7/17/2013	9:57	sub	yes	yes	yes	82	84	94
8/27/2013	9:47	sub	yes	yes	yes	82	98	104
7/13/2013	10:18	sub	yes	yes	yes	85	101	106
7/8/2013	9:57	sub	yes	no	no	100	NA	NA
8/27/2013	11:20	sub	yes	no	no	100	NA	NA
7/8/2013	9:51	sub	no	no	no	NA	NA	NA
7/8/2013	9:53	sub	no	no	no	NA	NA	NA
7/8/2013	9:54	sub	no	no	no	NA	NA	NA
7/8/2013	10:00	sub	no	no	no	NA	NA	NA
7/8/2013	11:06	sub	no	no	no	NA	NA	NA
7/8/2013	11:08	sub	no	no	no	NA	NA	NA
7/8/2013	11:11	sub	no	no	no	NA	NA	NA
7/13/2013	10:15	sub	no	no	no	NA	NA	NA
7/13/2013	10:20	sub	no	no	no	NA	NA	NA
7/13/2013	10:24	sub	no	no	no	NA	NA	NA
7/13/2013	11:36	sub	no	no	no	NA	NA	NA
7/13/2013	11:39	sub	no	no	no	NA	NA	NA
7/13/2013	11:41	sub	no	no	no	NA	NA	NA
7/13/2013	11:44	sub	no	no	no	NA	NA	NA
7/13/2013	11:46	sub	no	no	no	NA	NA	NA
7/14/2013	9:42	sub	no	no	no	NA	NA	NA
7/14/2013	9:45	sub	no	no	no	NA	NA	NA
7/14/2013	9:47	sub	no	no	no	NA	NA	NA
7/14/2013	11:12	sub	no	no	no	NA	NA	NA
7/14/2013	11:15	sub	no	no	no	NA	NA	NA
7/14/2013	11:17	sub	no	no	no	NA	NA	NA
7/14/2013	11:20	sub	no	no	no	NA	NA	NA
7/14/2013	11:22	sub	no	no	no	NA	NA	NA
7/17/2013	9:48	sub	no	no	no	NA	NA	NA
7/17/2013	9:52	sub	no	no	no	NA	NA	NA
7/17/2013	9:55	sub	no	no	no	NA	NA	NA
7/17/2013	10:59	sub	no	no	no	NA	NA	NA
7/17/2013	11:02	sub	no	no	no	NA	NA	NA
7/17/2013	11:04	sub	no	no	no	NA	NA	NA
7/19/2013	10:16	sub	no	no	no	NA	NA	NA
7/19/2013	10:18	sub	no	no	no	NA	NA	NA
7/19/2013	10:20	sub	no	no	no	NA	NA	NA
7/19/2013	10:22	sub	no	no	no	NA	NA	NA
7/19/2013	10:24	sub	no	no	no	NA	NA	NA
7/19/2013	11:18	sub	no	no	no	NA	NA	NA
7/19/2013	11:20	sub	no	no	no	NA	NA	NA
7/19/2013	11:22	sub	no	no	no	NA	NA	NA
7/19/2013	11:24	sub	no	no	no	NA	NA	NA
7/24/2013	9:48	sub	no	no	no	NA	NA	NA
7/24/2013	9:52	sub	no	no	no	NA	NA	NA
7/24/2013	9:54	sub	no	no	no	NA	NA	NA
7/24/2013	9:56	sub	no	no	no	NA	NA	NA
7/24/2013	10:57	sub	no	no	no	NA	NA	NA
7/24/2013	10:59	sub	no	no	no	NA	NA	NA

7/24/2013	11:01	sub	no	no	no	NA	NA	NA
7/24/2013	11:03	sub	no	no	no	NA	NA	NA
8/27/2013	9:50	sub	no	no	no	NA	NA	NA
8/27/2013	9:52	sub	no	no	no	NA	NA	NA
8/27/2013	11:27	sub	no	no	no	NA	NA	NA
8/11/2013	10:10	subpl	yes	no	no	2	NA	NA
8/27/2013	11:02	subpl	yes	no	no	2	NA	NA
7/16/2013	9:54	subpl	yes	yes	yes	3	4	6
8/11/2013	10:10	subpl	yes	yes	yes	3	4	6
9/4/2013	9:37	subpl	yes	yes	yes	3	10	21
8/11/2013	10:13	subpl	yes	yes	yes	4	4	10
7/25/2013	9:40	subpl	yes	yes	yes	5	2	28
7/8/2013	10:15	subpl	yes	yes	yes	12	14	19
7/25/2013	10:47	subpl	yes	yes	yes	12	23	28
7/8/2013	10:19	subpl	yes	yes	yes	15	35	47
8/27/2013	11:08	subpl	yes	yes	yes	17	18	23
9/4/2013	9:36	subpl	yes	yes	yes	18	19	32
7/14/2013	10:36	subpl	yes	yes	yes	22	25	54
7/14/2013	10:38	subpl	yes	yes	yes	23	35	42
8/11/2013	11:20	subpl	yes	no	no	23	NA	NA
8/27/2013	10:31	subpl	yes	no	no	23	NA	NA
7/16/2013	11:03	subpl	yes	no	no	24	NA	NA
8/22/2013	10:57	subpl	yes	no	no	26	NA	NA
7/18/2013	10:18	subpl	yes	yes	yes	28	43	49
8/27/2013	11:07	subpl	yes	yes	yes	29	40	49
7/14/2013	10:05	subpl	yes	no	no	32	NA	NA
7/14/2013	10:03	subpl	yes	yes	yes	33	66	76
7/14/2013	10:00	subpl	yes	yes	yes	36	37	48
9/4/2013	11:04	subpl	yes	yes	yes	36	77	86
7/13/2013	10:34	subpl	yes	no	no	37	NA	NA
7/18/2013	11:20	subpl	yes	yes	yes	37	40	49
8/11/2013	11:24	subpl	yes	yes	yes	37	75	80
8/22/2013	11:00	subpl	yes	yes	yes	41	58	69
7/14/2013	9:58	subpl	yes	yes	yes	42	45	52
7/14/2013	10:29	subpl	yes	no	no	42	NA	NA
7/13/2013	10:52	subpl	yes	no	no	44	NA	NA
7/8/2013	10:22	subpl	yes	yes	yes	46	56	63
9/4/2013	9:42	subpl	yes	yes	yes	48	55	66
7/14/2013	10:32	subpl	yes	yes	yes	50	60	72
8/22/2013	10:06	subpl	yes	yes	yes	50	58	69
8/27/2013	10:36	subpl	yes	yes	yes	51	58	68
7/13/2013	10:30	subpl	yes	yes	yes	54	94	100
9/4/2013	9:33	subpl	yes	no	no	55	NA	NA
7/18/2013	10:13	subpl	yes	yes	yes	59	61	70
7/13/2013	10:27	subpl	yes	yes	yes	62	75	119
7/13/2013	10:37	subpl	yes	yes	yes	62	70	82
7/14/2013	10:34	subpl	yes	no	no	65	NA	NA
8/22/2013	10:15	subpl	yes	yes	yes	66	70	77
9/4/2013	11:06	subpl	yes	no	no	67	NA	NA
8/15/2013	10:48	subpl	yes	yes	yes	71	85	100

9/4/2013	11:09	subpl	yes	yes	yes	71	79	86
7/13/2013	10:54	subpl	yes	yes	yes	74	78	87
8/22/2013	10:52	subpl	yes	yes	yes	74	113	120
7/18/2013	11:14	subpl	yes	yes	yes	79	83	92
8/27/2013	10:40	subpl	yes	yes	yes	80	84	91
7/18/2013	10:09	subpl	yes	yes	yes	85	70	78
8/27/2013	10:38	subpl	yes	yes	yes	85	86	101
7/18/2013	11:18	subpl	yes	yes	yes	86	90	95
8/27/2013	10:34	subpl	yes	yes	yes	90	93	102
7/16/2013	10:00	subpl	yes	yes	yes	103	104	112
7/25/2013	9:32	subpl	yes	yes	yes	105	111	118
8/22/2013	10:10	subpl	yes	yes	yes	105	109	119
8/15/2013	10:43	subpl	yes	yes	yes	107	112	118
8/11/2013	11:18	subpl	yes	yes	yes	108	109	117
8/11/2013	10:05	subpl	yes	no	no	114	NA	NA
7/25/2013	10:42	subpl	yes	no	no	115	NA	NA
7/8/2013	10:17	subpl	no	no	no	NA	NA	NA
7/8/2013	10:23	subpl	no	no	no	NA	NA	NA
7/8/2013	11:23	subpl	no	no	no	NA	NA	NA
7/8/2013	11:26	subpl	no	no	no	NA	NA	NA
7/8/2013	11:28	subpl	no	no	no	NA	NA	NA
7/8/2013	11:30	subpl	no	no	no	NA	NA	NA
7/13/2013	10:32	subpl	no	no	no	NA	NA	NA
7/13/2013	10:56	subpl	no	no	no	NA	NA	NA
7/13/2013	10:58	subpl	no	no	no	NA	NA	NA
7/13/2013	11:01	subpl	no	no	no	NA	NA	NA
7/14/2013	10:01	subpl	no	no	no	NA	NA	NA
7/16/2013	9:52	subpl	no	no	no	NA	NA	NA
7/16/2013	9:55	subpl	no	no	no	NA	NA	NA
7/16/2013	9:58	subpl	no	no	no	NA	NA	NA
7/16/2013	11:00	subpl	no	no	no	NA	NA	NA
7/16/2013	11:04	subpl	no	no	no	NA	NA	NA
7/16/2013	11:07	subpl	no	no	no	NA	NA	NA
7/18/2013	10:11	subpl	no	no	no	NA	NA	NA
7/18/2013	10:16	subpl	no	no	no	NA	NA	NA
7/18/2013	11:16	subpl	no	no	no	NA	NA	NA
7/25/2013	9:30	subpl	no	no	no	NA	NA	NA
7/25/2013	9:35	subpl	no	no	no	NA	NA	NA
7/25/2013	9:37	subpl	no	no	no	NA	NA	NA
7/25/2013	10:40	subpl	no	no	no	NA	NA	NA
7/25/2013	10:45	subpl	no	no	no	NA	NA	NA
8/11/2013	10:07	subpl	no	no	no	NA	NA	NA
8/11/2013	11:22	subpl	no	no	no	NA	NA	NA
8/15/2013	10:41	subpl	no	no	no	NA	NA	NA
8/15/2013	10:46	subpl	no	no	no	NA	NA	NA
8/15/2013	11:48	subpl	no	no	no	NA	NA	NA
8/22/2013	10:07	subpl	no	no	no	NA	NA	NA
8/22/2013	10:13	subpl	no	no	no	NA	NA	NA
8/22/2013	10:55	subpl	no	no	no	NA	NA	NA
8/27/2013	11:04	subpl	no	no	no	NA	NA	NA

9/4/2013	9:40	subpl	no	no	no	NA	NA	NA
9/4/2013	11:11	subpl	no	no	no	NA	NA	NA

trt	%E8-12:Ac	pher:plant ratio
sub	suboptimal pheromone (1ng)	
subpl	suboptimal+plant	
opt	optimal pheromone (100ng)	
plant	plant blend alone	
a0	0%	1:0
a1	0%	1:10
a2	0%	1:100
a3	0%	1:1000
b0	50%	1:0
b1	50%	1:10
b2	50%	1:100
b3	50%	1:1000
c0	100%	1:0
c1	100%	1:10
c2	100%	1:100
c3	100%	1:1000
d0	150%	1:0
d1	150%	1:10
d2	150%	1:100
d3	150%	1:1000
e0	200%	1:0
e1	200%	1:10
e2	200%	1:100
e3	200%	1:1000

date	time	trt	fly	of	contact
3/23/2015	10:58	a0	yes	yes	yes
3/23/2015	11:00	a0	yes	no	no
3/23/2015	11:03	a0	no	no	no
3/23/2015	11:05	a0	yes	yes	yes
3/23/2015	11:07	a0	yes	yes	yes
3/23/2015	12:27	a0	yes	yes	yes
3/25/2015	10:55	a0	yes	no	no
3/25/2015	10:57	a0	no	no	no
3/25/2015	11:00	a0	yes	yes	yes
3/25/2015	11:01	a0	yes	yes	yes
3/25/2015	11:03	a0	yes	yes	yes
3/25/2015	11:04	a0	yes	yes	yes
3/29/2015	11:32	a0	yes	yes	yes
3/29/2015	11:34	a0	yes	yes	yes
3/29/2015	11:37	a0	no	no	no
3/29/2015	11:39	a0	yes	yes	yes
3/29/2015	11:04	a0	yes	yes	yes
3/29/2015	11:42	a0	yes	yes	yes
3/29/2015	12:56	a0	no	no	no
3/30/2015	16:17	a0	no	no	no
3/30/2015	16:19	a0	no	no	no
3/30/2015	16:21	a0	yes	yes	yes
3/30/2015	16:23	a0	yes	yes	yes
3/30/2015	16:25	a0	yes	yes	yes
3/30/2015	16:27	a0	yes	no	no
3/31/2015	12:08	a0	yes	yes	yes
3/31/2015	12:09	a0	no	no	no
3/31/2015	12:11	a0	yes	yes	yes
3/31/2015	12:14	a0	yes	yes	yes
3/31/2015	12:16	a0	yes	no	no
3/31/2015	12:19	a0	yes	yes	yes
4/2/2015	12:27	a0	yes	yes	yes
4/2/2015	12:28	a0	yes	yes	yes
4/2/2015	12:03	a0	yes	yes	yes
4/2/2015	12:31	a0	no	no	no
4/2/2015	12:33	a0	no	no	no
4/2/2015	12:36	a0	yes	yes	yes
4/3/2015	11:00	a0	no	no	no
4/3/2015	11:02	a0	yes	yes	yes
4/3/2015	11:04	a0	yes	yes	yes
4/3/2015	11:05	a0	yes	yes	yes
4/6/2015	11:41	a0	yes	yes	yes
4/6/2015	11:43	a0	yes	yes	yes
4/6/2015	11:44	a0	yes	yes	yes
4/6/2015	11:47	a0	yes	yes	yes
4/6/2015	11:49	a0	yes	yes	yes
4/6/2015	11:05	a0	yes	yes	yes
4/7/2015	10:37	a0	yes	no	no
4/7/2015	10:39	a0	yes	yes	yes

Pheromone concentration
100ng
100ng
100ng
100ng
100ng
100ng

4/7/2015	10:04	a0	yes	yes	yes
4/7/2015	10:41	a0	yes	yes	yes
4/7/2015	10:43	a0	no	no	no
4/7/2015	10:45	a0	yes	no	no
4/7/2015	10:47	a0	yes	no	no
4/8/2015	10:31	a0	yes	no	no
4/8/2015	10:33	a0	yes	yes	yes
4/8/2015	10:35	a0	yes	yes	yes
4/8/2015	10:36	a0	no	no	no
4/8/2015	10:39	a0	yes	no	no
4/8/2015	10:41	a0	yes	yes	yes
3/24/2015	11:58	a1	no	no	no
3/24/2015	12:00	a1	yes	no	no
3/24/2015	12:03	a1	yes	no	no
3/24/2015	12:05	a1	yes	yes	yes
3/24/2015	12:08	a1	no	no	no
3/24/2015	12:23	a1	yes	yes	yes
3/25/2015	12:08	a1	yes	yes	yes
3/25/2015	12:01	a1	no	no	no
3/25/2015	12:12	a1	yes	yes	yes
3/25/2015	12:13	a1	yes	yes	yes
3/25/2015	12:16	a1	no	no	no
3/25/2015	12:18	a1	yes	yes	yes
3/27/2015	10:44	a1	yes	no	no
3/27/2015	10:46	a1	yes	yes	yes
3/27/2015	10:47	a1	yes	yes	yes
3/27/2015	10:05	a1	yes	yes	yes
3/27/2015	10:51	a1	yes	no	no
3/27/2015	12:28	a1	yes	yes	yes
3/27/2015	12:28	a1	yes	yes	yes
3/29/2015	11:08	a1	yes	yes	yes
3/29/2015	11:08	a1	no	no	no
3/29/2015	11:11	a1	no	no	no
3/29/2015	11:13	a1	yes	yes	yes
3/29/2015	11:15	a1	yes	yes	yes
3/29/2015	11:16	a1	yes	yes	yes
3/29/2015	12:58	a1	yes	yes	yes
3/30/2015	11:36	a1	yes	yes	yes
3/30/2015	11:38	a1	no	no	no
3/30/2015	11:04	a1	yes	no	no
3/30/2015	11:43	a1	yes	yes	yes
3/30/2015	11:44	a1	no	no	no
3/30/2015	11:46	a1	yes	yes	yes
3/31/2015	11:46	a1	yes	yes	yes
3/31/2015	11:48	a1	yes	yes	yes
3/31/2015	11:05	a1	yes	yes	yes
3/31/2015	11:52	a1	yes	yes	yes
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3/31/2015	11:56	a1	yes	yes	yes
4/2/2015	12:06	a1	yes	yes	yes

4/2/2015	12:08	a1	yes	yes	no
4/2/2015	12:11	a1	yes	yes	yes
4/2/2015	12:12	a1	no	no	no
4/2/2015	12:14	a1	yes	yes	yes
4/2/2015	12:16	a1	yes	yes	yes
4/3/2015	12:13	a1	yes	yes	yes
4/3/2015	12:15	a1	yes	no	no
4/3/2015	12:17	a1	yes	yes	yes
4/3/2015	12:18	a1	yes	no	no
4/4/2015	11:27	a1	yes	yes	yes
4/4/2015	11:29	a1	yes	yes	yes
4/4/2015	11:31	a1	no	no	no
4/4/2015	11:34	a1	yes	yes	yes
4/4/2015	11:36	a1	yes	no	no
4/4/2015	11:39	a1	yes	no	no
4/8/2015	12:04	a1	yes	yes	yes
4/8/2015	12:06	a1	no	no	no
4/8/2015	12:09	a1	yes	no	no
4/8/2015	12:11	a1	yes	yes	yes
4/8/2015	12:13	a1	yes	yes	yes
4/8/2015	12:14	a1	yes	yes	yes
3/24/2015	10:43	a2	no	no	no
3/24/2015	10:45	a2	yes	yes	yes
3/24/2015	10:47	a2	yes	no	no
3/24/2015	10:49	a2	yes	yes	yes
3/24/2015	10:51	a2	yes	yes	yes
3/24/2015	12:33	a2	no	no	no
3/25/2015	15:56	a2	yes	yes	yes
3/25/2015	15:58	a2	no	no	no
3/25/2015	16:00	a2	yes	yes	yes
3/25/2015	16:01	a2	yes	yes	yes
3/25/2015	16:02	a2	yes	yes	yes
3/25/2015	16:05	a2	yes	yes	yes
3/29/2015	12:19	a2	yes	yes	yes
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3/29/2015	12:23	a2	yes	yes	yes
3/29/2015	12:25	a2	yes	yes	yes
3/29/2015	12:26	a2	yes	yes	yes
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3/29/2015	12:43	a2	yes	yes	yes
3/30/2015	12:41	a2	no	no	no
3/30/2015	12:44	a2	yes	yes	yes
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3/30/2015	12:48	a2	yes	yes	yes
3/30/2015	12:51	a2	yes	yes	yes
3/30/2015	12:51	a2	no	no	no
3/31/2015	11:00	a2	no	no	no
3/31/2015	11:02	a2	yes	yes	yes
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4/2/2015	12:49	a2	yes	yes	yes
4/2/2015	12:51	a2	yes	yes	yes
4/2/2015	12:52	a2	yes	yes	yes
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4/3/2015	11:25	a2	yes	yes	yes
4/3/2015	11:27	a2	yes	yes	no
4/6/2015	11:16	a2	yes	yes	yes
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4/6/2015	11:19	a2	yes	yes	yes
4/6/2015	11:21	a2	yes	yes	yes
4/6/2015	11:22	a2	yes	yes	yes
4/6/2015	11:23	a2	yes	no	no
4/7/2015	11:02	a2	yes	yes	yes
4/7/2015	11:03	a2	yes	no	no
4/7/2015	11:06	a2	yes	yes	yes
4/7/2015	11:07	a2	yes	yes	yes
4/7/2015	11:08	a2	yes	yes	yes
4/7/2015	11:01	a2	yes	yes	yes
4/7/2015	11:12	a2	yes	yes	yes
4/8/2015	12:17	a2	yes	yes	yes
4/8/2015	12:18	a2	yes	no	no
4/8/2015	12:02	a2	yes	yes	yes
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4/8/2015	12:24	a2	yes	no	no
4/8/2015	12:26	a2	yes	yes	yes
3/24/2015	11:37	a3	yes	yes	yes
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3/25/2015	11:06	a3	yes	yes	yes
3/25/2015	11:07	a3	no	no	no
3/25/2015	11:09	a3	yes	yes	yes
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3/25/2015	11:12	a3	yes	yes	yes
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3/29/2015	11:47	a3	yes	yes	yes
3/29/2015	11:49	a3	yes	yes	yes
3/29/2015	11:05	a3	yes	no	no
3/29/2015	11:52	a3	yes	yes	yes
3/29/2015	11:53	a3	no	no	no
3/29/2015	11:56	a3	yes	yes	yes
3/29/2015	12:51	a3	no	no	no

3/30/2015	16:31	a3	yes	yes	yes
3/30/2015	16:33	a3	yes	yes	yes
3/30/2015	16:35	a3	yes	yes	yes
3/30/2015	16:36	a3	yes	no	no
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3/31/2015	11:18	a3	yes	yes	yes
3/31/2015	11:19	a3	yes	yes	yes
3/31/2015	11:21	a3	yes	yes	yes
4/2/2015	11:01	a3	yes	yes	yes
4/2/2015	11:12	a3	no	no	no
4/2/2015	11:14	a3	yes	yes	yes
4/2/2015	11:15	a3	yes	yes	yes
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4/2/2015	11:18	a3	no	no	no
4/3/2015	11:42	a3	no	no	no
4/3/2015	11:44	a3	yes	yes	yes
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4/3/2015	11:47	a3	yes	yes	no
4/4/2015	10:54	a3	yes	yes	yes
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4/4/2015	10:57	a3	yes	yes	yes
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4/4/2015	10:59	a3	no	no	no
4/4/2015	11:02	a3	yes	yes	yes
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4/7/2015	15:49	a3	yes	no	no
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4/7/2015	15:52	a3	no	no	no
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4/8/2015	11:17	a3	yes	yes	yes
4/8/2015	11:19	a3	yes	yes	yes
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4/8/2015	11:27	a3	yes	yes	yes
3/24/2015	12:11	a4	yes	no	no
3/24/2015	12:14	a4	yes	no	yes
3/24/2015	12:16	a4	no	no	no
3/24/2015	12:18	a4	yes	yes	yes
3/24/2015	12:19	a4	yes	yes	yes
3/24/2015	12:02	a4	yes	no	no
3/25/2015	11:56	a4	yes	no	no
3/25/2015	11:58	a4	yes	yes	yes
3/25/2015	12:00	a4	yes	yes	yes

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3/25/2015	12:05	a4	yes	yes	yes
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3/30/2015	17:29	a4	no	no	no
3/30/2015	17:32	a4	no	no	no
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4/3/2015	10:51	a4	yes	no	no
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4/3/2015	10:57	a4	yes	no	no
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4/4/2015	12:06	a4	yes	no	no
4/7/2015	11:17	a4	no	no	no
4/7/2015	11:20	a4	yes	no	no
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4/7/2015	11:27	a4	yes	yes	yes
4/7/2015	11:29	a4	yes	yes	yes
4/7/2015	17:03	a4	yes	no	no
4/7/2015	17:06	a4	yes	yes	yes
4/7/2015	17:07	a4	yes	yes	yes
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4/7/2015	17:01	a4	yes	yes	yes
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4/7/2015	17:13	a4	yes	no	no
4/10/2015	10:56	a4	yes	yes	yes
4/10/2015	10:58	a4	yes	yes	yes
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4/10/2015	11:02	a4	yes	yes	yes
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4/10/2015	11:05	a4	yes	yes	yes
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3/23/2015	10:49	b0	yes	yes	yes
3/23/2015	10:50	b0	yes	yes	yes
3/23/2015	10:52	b0	no	no	no
3/23/2015	10:56	b0	yes	yes	yes
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3/25/2015	11:31	b0	no	no	no
3/25/2015	11:33	b0	no	no	no
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3/25/2015	11:38	b0	yes	yes	yes
3/25/2015	11:39	b0	yes	yes	yes
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3/27/2015	12:22	b0	no	no	no
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3/31/2015	16:26	b0	yes	yes	yes
3/31/2015	16:28	b0	yes	yes	yes
3/31/2015	16:31	b0	yes	yes	yes
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4/2/2015	11:53	b0	yes	no	no
4/2/2015	11:55	b0	yes	yes	yes
4/2/2015	11:57	b0	yes	yes	yes
4/2/2015	11:59	b0	yes	yes	yes
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4/2/2015	12:04	b0	no	no	no
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4/3/2015	10:42	b0	yes	yes	yes
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4/7/2015	12:34	b0	yes	yes	yes
4/7/2015	12:36	b0	yes	yes	yes
4/7/2015	12:37	b0	no	no	no
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4/8/2015	11:54	b0	no	no	no
4/8/2015	11:55	b0	yes	yes	no
4/8/2015	11:58	b0	yes	yes	yes
4/8/2015	11:59	b0	yes	yes	yes
4/8/2015	12:02	b0	yes	yes	yes
3/24/2015	10:35	b1	yes	yes	yes
3/24/2015	10:36	b1	yes	yes	yes
3/24/2015	10:38	b1	yes	yes	yes
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3/25/2015	12:03	b1	yes	no	no
3/25/2015	12:32	b1	yes	yes	yes
3/25/2015	12:34	b1	yes	yes	yes
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3/31/2015	12:26	b1	yes	yes	yes
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4/2/2015	11:45	b1	yes	yes	yes
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4/2/2015	11:49	b1	yes	no	no
4/2/2015	11:52	b1	yes	yes	yes
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4/3/2015	11:56	b1	yes	yes	yes
4/3/2015	11:57	b1	yes	yes	no
4/3/2015	11:59	b1	yes	yes	yes
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4/6/2015	10:53	b1	yes	yes	yes
4/6/2015	10:54	b1	yes	yes	yes
4/6/2015	10:57	b1	yes	yes	yes
4/6/2015	10:58	b1	no	no	no
4/7/2015	11:30	b1	yes	yes	yes
4/7/2015	11:33	b1	yes	yes	yes
4/7/2015	11:35	b1	yes	no	no
4/7/2015	11:38	b1	yes	yes	yes
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4/7/2015	11:42	b1	yes	yes	yes
4/7/2015	11:43	b1	yes	yes	yes
4/8/2015	11:29	b1	yes	yes	yes
4/8/2015	11:32	b1	yes	yes	yes
4/8/2015	11:34	b1	yes	yes	yes
4/8/2015	11:36	b1	yes	yes	yes
4/8/2015	11:38	b1	yes	yes	yes
3/23/2015	11:33	b2	yes	yes	yes
3/23/2015	11:35	b2	no	no	no
3/23/2015	11:37	b2	yes	yes	yes
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3/23/2015	11:39	b2	yes	no	no
3/23/2015	12:23	b2	yes	yes	yes
3/24/2015	10:54	b2	yes	yes	yes
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3/24/2015	10:58	b2	yes	yes	yes
3/24/2015	11:00	b2	yes	yes	yes
3/24/2015	12:37	b2	yes	yes	yes
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3/25/2015	12:23	b2	yes	yes	yes
3/25/2015	12:24	b2	yes	no	no
3/25/2015	12:26	b2	yes	yes	yes
3/25/2015	12:27	b2	yes	yes	yes
3/25/2015	12:28	b2	yes	yes	yes
3/29/2015	11:57	b2	yes	no	no
3/29/2015	11:59	b2	yes	yes	yes
3/29/2015	12:01	b2	yes	yes	yes
3/29/2015	12:03	b2	yes	yes	yes
3/29/2015	12:05	b2	no	no	no
3/29/2015	12:08	b2	yes	yes	yes
3/29/2015	12:49	b2	yes	yes	yes
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3/30/2015	17:42	b2	yes	no	no

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3/30/2015	17:46	b2	yes	yes	yes
3/30/2015	17:49	b2	yes	yes	yes
3/31/2015	10:49	b2	yes	no	no
3/31/2015	10:52	b2	yes	yes	yes
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3/31/2015	10:55	b2	yes	yes	yes
3/31/2015	10:56	b2	yes	yes	yes
3/31/2015	10:58	b2	yes	yes	yes
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4/2/2015	10:49	b2	yes	yes	yes
4/2/2015	10:05	b2	yes	yes	yes
4/2/2015	10:52	b2	yes	yes	yes
4/2/2015	10:53	b2	yes	no	no
4/2/2015	10:56	b2	yes	yes	yes
4/4/2015	11:18	b2	yes	yes	yes
4/4/2015	11:02	b2	yes	yes	yes
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4/7/2015	11:01	b2	yes	yes	yes
4/8/2015	10:54	b2	yes	no	no
4/8/2015	10:57	b2	yes	yes	yes
4/8/2015	10:58	b2	yes	yes	yes
4/8/2015	11:00	b2	yes	yes	yes
4/8/2015	11:02	b2	yes	yes	yes
4/8/2015	11:03	b2	yes	yes	yes
3/23/2015	11:15	b3	yes	yes	yes
3/23/2015	11:16	b3	yes	no	no
3/23/2015	11:19	b3	yes	yes	yes
3/23/2015	11:02	b3	yes	yes	yes
3/23/2015	11:21	b3	no	no	no
3/23/2015	12:24	b3	no	no	no
3/25/2015	16:17	b3	no	no	no
3/25/2015	16:02	b3	yes	yes	yes
3/25/2015	16:22	b3	yes	yes	yes
3/25/2015	16:24	b3	yes	yes	yes
3/25/2015	16:26	b3	yes	yes	yes
3/25/2015	16:28	b3	yes	yes	yes
3/27/2015	11:39	b3	yes	yes	yes
3/27/2015	11:41	b3	yes	yes	yes
3/27/2015	11:44	b3	yes	no	no
3/27/2015	11:46	b3	yes	no	no
3/27/2015	11:05	b3	no	no	no

3/27/2015	12:19	b3	yes	yes	yes
3/27/2015	12:02	b3	no	no	no
3/30/2015	11:22	b3	yes	yes	yes
3/30/2015	11:25	b3	no	no	no
3/30/2015	11:28	b3	no	no	no
3/30/2015	11:03	b3	yes	yes	yes
3/30/2015	11:31	b3	yes	yes	yes
3/30/2015	11:33	b3	yes	no	no
3/31/2015	16:45	b3	yes	yes	yes
3/31/2015	16:46	b3	yes	yes	yes
3/31/2015	16:48	b3	no	no	no
3/31/2015	16:51	b3	yes	yes	yes
3/31/2015	16:53	b3	yes	yes	yes
3/31/2015	16:55	b3	yes	yes	yes
4/2/2015	11:02	b3	yes	no	no
4/2/2015	11:22	b3	yes	yes	yes
4/2/2015	11:24	b3	yes	yes	yes
4/2/2015	11:25	b3	no	no	no
4/2/2015	11:27	b3	yes	yes	yes
4/2/2015	11:29	b3	yes	yes	yes
4/3/2015	11:14	b3	yes	yes	yes
4/3/2015	11:16	b3	yes	no	no
4/3/2015	11:19	b3	yes	yes	yes
4/3/2015	11:02	b3	yes	yes	yes
4/4/2015	11:45	b3	yes	yes	yes
4/4/2015	11:47	b3	yes	yes	yes
4/4/2015	11:49	b3	no	no	no
4/4/2015	11:52	b3	yes	yes	yes
4/4/2015	11:53	b3	yes	no	no
4/7/2015	12:12	b3	yes	yes	yes
4/7/2015	12:13	b3	no	no	no
4/7/2015	12:15	b3	yes	no	no
4/7/2015	12:18	b3	yes	yes	yes
4/7/2015	12:19	b3	no	no	no
4/7/2015	12:22	b3	yes	yes	yes
4/7/2015	12:24	b3	yes	yes	yes
4/10/2015	10:43	b3	yes	yes	yes
4/10/2015	10:44	b3	yes	yes	yes
4/10/2015	10:45	b3	no	no	no
4/10/2015	10:48	b3	yes	no	no
4/10/2015	10:05	b3	yes	yes	yes
4/10/2015	10:51	b3	yes	no	no
4/10/2015	10:54	b3	yes	yes	yes
3/23/2015	11:44	b4	yes	no	no
3/23/2015	11:47	b4	yes	yes	yes
3/23/2015	11:48	b4	yes	yes	yes
3/23/2015	11:05	b4	yes	yes	yes
3/23/2015	11:51	b4	yes	yes	yes
3/23/2015	12:17	b4	no	no	no
3/24/2015	11:05	b4	no	no	no

3/24/2015	11:08	b4	no	no	no
3/24/2015	11:11	b4	yes	yes	yes
3/24/2015	11:12	b4	yes	yes	yes
3/24/2015	11:13	b4	no	no	no
3/24/2015	12:25	b4	yes	yes	yes
3/25/2015	10:43	b4	no	no	no
3/25/2015	10:45	b4	yes	yes	yes
3/25/2015	10:46	b4	yes	no	no
3/25/2015	10:49	b4	yes	yes	yes
3/25/2015	10:49	b4	yes	no	no
3/25/2015	10:52	b4	no	no	no
3/27/2015	11:14	b4	yes	no	no
3/27/2015	11:18	b4	yes	yes	yes
3/27/2015	11:02	b4	yes	yes	yes
3/27/2015	11:22	b4	yes	yes	yes
3/27/2015	11:23	b4	no	no	no
3/27/2015	12:31	b4	yes	yes	yes
3/27/2015	12:32	b4	yes	yes	yes
3/30/2015	12:19	b4	no	no	no
3/30/2015	12:22	b4	yes	no	no
3/30/2015	12:24	b4	yes	yes	yes
3/30/2015	12:26	b4	yes	yes	yes
3/30/2015	12:27	b4	yes	yes	yes
3/30/2015	12:28	b4	no	no	no
3/31/2015	15:05	b4	no	no	no
3/31/2015	15:52	b4	yes	yes	yes
3/31/2015	15:54	b4	yes	yes	yes
3/31/2015	15:56	b4	yes	yes	yes
3/31/2015	15:58	b4	yes	no	no
3/31/2015	16:00	b4	yes	yes	yes
4/2/2015	10:37	b4	yes	no	no
4/2/2015	10:39	b4	yes	yes	yes
4/2/2015	10:41	b4	yes	yes	yes
4/2/2015	10:42	b4	yes	yes	yes
4/2/2015	10:43	b4	no	no	no
4/2/2015	10:45	b4	yes	yes	yes
4/6/2015	10:31	b4	no	no	no
4/6/2015	10:34	b4	yes	yes	yes
4/6/2015	10:36	b4	yes	yes	yes
4/6/2015	10:38	b4	yes	yes	yes
4/7/2015	16:34	b4	no	no	no
4/7/2015	16:36	b4	yes	yes	yes
4/7/2015	16:38	b4	yes	yes	yes
4/7/2015	16:04	b4	no	no	no
4/7/2015	16:42	b4	yes	yes	yes
4/7/2015	16:44	b4	yes	no	no
4/7/2015	16:47	b4	yes	no	no
4/10/2015	11:08	b4	yes	yes	yes
4/10/2015	11:09	b4	yes	no	no
4/10/2015	11:12	b4	yes	no	no

4/10/2015	11:13	b4	yes	yes	yes
4/10/2015	11:15	b4	yes	yes	yes
4/10/2015	11:16	b4	yes	yes	yes
3/9/2015	10:49	hex	no	no	no
3/9/2015	10:51	hex	no	no	no
3/9/2015	10:53	hex	no	no	no
3/9/2015	10:56	hex	no	no	no
3/9/2015	10:58	hex	no	no	no
3/9/2015	12:31	hex	no	no	no
3/9/2015	12:33	hex	no	no	no
3/9/2015	12:36	hex	no	no	no
3/9/2015	12:38	hex	no	no	no
3/10/2015	11:22	hex	no	no	no
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3/10/2015	11:27	hex	no	no	no
3/10/2015	11:29	hex	no	no	no
3/10/2015	11:31	hex	no	no	no
3/10/2015	12:26	hex	no	no	no
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3/10/2015	12:33	hex	no	no	no
3/10/2015	12:35	hex	no	no	no
3/11/2015	11:32	hex	no	no	no
3/11/2015	11:35	hex	no	no	no
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3/11/2015	12:33	hex	no	no	no
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3/12/2015	10:24	hex	no	no	no
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3/15/2015	10:24	hex	no	no	no
3/15/2015	10:26	hex	no	no	no
3/15/2015	10:29	hex	no	no	no
3/15/2015	10:31	hex	no	no	no

3/15/2015	10:34	hex	no	no	no
3/15/2015	12:12	hex	no	no	no
3/15/2015	12:15	hex	no	no	no
3/15/2015	12:17	hex	no	no	no
3/15/2015	12:20	hex	no	no	no
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3/25/2015	17:15	hex	no	no	no
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3/29/2015	11:05	hex	no	no	no
3/30/2015	10:59	hex	no	no	no
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3/31/2015	16:43	hex	no	no	no
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4/2/2015	17:59	hex	no	no	no
4/4/2015	10:30	hex	no	no	no
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4/7/2015	15:32	hex	no	no	no
4/8/2015	10:27	hex	no	no	no
4/8/2015	10:29	hex	no	no	no
3/9/2015	11:01	c0	yes	yes	yes
3/9/2015	11:12	c0	yes	yes	no
3/9/2015	11:14	c0	yes	yes	yes
3/9/2015	11:17	c0	yes	yes	yes
3/9/2015	11:18	c0	yes	yes	yes
3/9/2015	11:41	c0	yes	yes	yes
3/9/2015	11:42	c0	yes	yes	yes
3/9/2015	11:44	c0	no	no	no
3/9/2015	11:47	c0	no	no	no
3/10/2015	10:52	c0	no	no	no
3/10/2015	10:54	c0	no	no	no
3/10/2015	10:56	c0	no	no	no
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3/10/2015	11:00	c0	yes	yes	yes
3/10/2015	12:09	c0	no	no	no
3/10/2015	12:12	c0	yes	yes	yes
3/10/2015	12:13	c0	no	no	no
3/10/2015	12:16	c0	no	no	no
3/11/2015	10:42	c0	yes	yes	yes
3/11/2015	10:44	c0	yes	yes	yes
3/11/2015	10:46	c0	yes	yes	yes
3/11/2015	10:47	c0	no	no	no
3/11/2015	10:49	c0	yes	yes	yes
3/11/2015	12:01	c0	no	no	no
3/11/2015	12:13	c0	yes	no	no
3/11/2015	12:15	c0	yes	yes	yes

3/11/2015	12:17	c0	yes	yes	yes
3/12/2015	10:55	c0	yes	yes	yes
3/12/2015	10:57	c0	no	no	no
3/12/2015	10:59	c0	yes	yes	yes
3/12/2015	11:00	c0	yes	yes	yes
3/12/2015	11:02	c0	no	no	no
3/12/2015	11:05	c0	no	no	no
3/12/2015	11:53	c0	yes	yes	yes
3/12/2015	11:55	c0	no	no	no
3/12/2015	11:57	c0	no	no	no
3/14/2015	10:05	c0	no	no	no
3/14/2015	10:52	c0	no	no	no
3/14/2015	10:55	c0	yes	yes	yes
3/14/2015	10:56	c0	yes	yes	yes
3/14/2015	10:57	c0	yes	yes	yes
3/14/2015	11:44	c0	yes	yes	yes
3/14/2015	11:46	c0	yes	yes	yes
3/14/2015	11:47	c0	yes	yes	yes
3/14/2015	11:05	c0	yes	no	no
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3/15/2015	10:38	c0	yes	yes	yes
3/15/2015	10:39	c0	yes	yes	yes
3/15/2015	10:04	c0	yes	yes	no
3/15/2015	10:42	c0	yes	yes	yes
3/15/2015	11:55	c0	yes	yes	yes
3/15/2015	11:56	c0	yes	yes	yes
3/15/2015	11:58	c0	yes	no	no
3/15/2015	12:01	c0	yes	yes	yes
3/24/2015	11:01	c0	no	no	no
3/24/2015	11:04	c0	yes	yes	yes
3/25/2015	11:28	c0	yes	yes	yes
3/25/2015	11:29	c0	yes	yes	yes
3/27/2015	12:15	c0	no	no	no
3/27/2015	12:18	c0	yes	yes	yes
3/30/2015	16:53	c0	yes	yes	yes
3/30/2015	16:56	c0	yes	no	no
3/31/2015	16:03	c0	yes	yes	yes
3/31/2015	16:06	c0	no	no	no
4/2/2015	17:03	c0	yes	no	no
4/2/2015	17:32	c0	no	no	no
4/4/2015	12:09	c0	no	no	no
4/4/2015	12:11	c0	yes	yes	yes
4/7/2015	16:00	c0	no	no	no
4/7/2015	16:02	c0	yes	yes	yes
4/8/2015	12:28	c0	yes	yes	yes
4/8/2015	12:03	c0	no	no	no
3/9/2015	11:30	c1	yes	no	no
3/9/2015	11:33	c1	yes	no	no
3/9/2015	11:35	c1	yes	yes	yes
3/9/2015	11:36	c1	no	no	no

3/9/2015	11:39	c1	yes	yes	yes
3/9/2015	11:58	c1	yes	no	no
3/9/2015	12:01	c1	no	no	no
3/9/2015	12:03	c1	yes	yes	yes
3/9/2015	12:06	c1	yes	no	no
3/10/2015	10:24	c1	yes	yes	yes
3/10/2015	10:26	c1	yes	yes	yes
3/10/2015	10:27	c1	yes	no	no
3/10/2015	10:29	c1	yes	yes	yes
3/10/2015	10:31	c1	yes	yes	yes
3/10/2015	11:50	c1	yes	yes	yes
3/10/2015	11:51	c1	yes	no	no
3/10/2015	11:54	c1	no	no	no
3/10/2015	11:56	c1	yes	yes	yes
3/11/2015	11:14	c1	yes	yes	yes
3/11/2015	11:15	c1	yes	yes	yes
3/11/2015	11:16	c1	yes	yes	yes
3/11/2015	11:18	c1	no	no	no
3/11/2015	11:20	c1	yes	yes	yes
3/11/2015	11:51	c1	no	no	no
3/11/2015	11:54	c1	yes	yes	yes
3/11/2015	11:56	c1	yes	no	no
3/11/2015	11:59	c1	yes	yes	yes
3/12/2015	12:02	c1	yes	yes	yes
3/12/2015	12:22	c1	yes	yes	yes
3/12/2015	12:24	c1	yes	yes	yes
3/12/2015	12:27	c1	yes	yes	yes
3/12/2015	11:15	c1	no	no	no
3/12/2015	11:18	c1	yes	yes	yes
3/12/2015	11:19	c1	yes	yes	yes
3/12/2015	11:02	c1	yes	yes	yes
3/12/2015	11:21	c1	yes	yes	yes
3/14/2015	11:06	c1	yes	yes	yes
3/14/2015	11:07	c1	yes	no	no
3/14/2015	11:10	c1	yes	yes	yes
3/14/2015	11:11	c1	yes	yes	yes
3/14/2015	11:12	c1	yes	yes	yes
3/14/2015	12:00	c1	yes	yes	yes
3/14/2015	12:01	c1	no	no	no
3/14/2015	12:02	c1	yes	yes	yes
3/14/2015	12:04	c1	no	no	no
3/15/2015	11:02	c1	no	no	no
3/15/2015	11:04	c1	yes	yes	yes
3/15/2015	11:06	c1	yes	yes	yes
3/15/2015	11:08	c1	yes	yes	yes
3/15/2015	11:09	c1	yes	yes	yes
3/15/2015	11:26	c1	yes	yes	yes
3/15/2015	11:27	c1	yes	yes	yes
3/15/2015	11:29	c1	yes	no	no
3/15/2015	11:31	c1	yes	yes	yes

3/23/2015	11:09	c1	yes	yes	no
3/23/2015	11:11	c1	no	no	no
3/25/2015	16:49	c1	yes	no	no
3/25/2015	16:51	c1	yes	yes	yes
3/25/2015	16:54	c1	no	no	no
3/27/2015	11:26	c1	yes	yes	yes
3/27/2015	11:28	c1	no	no	no
3/30/2015	16:58	c1	yes	yes	yes
3/30/2015	16:59	c1	yes	yes	yes
3/31/2015	16:36	c1	no	no	no
3/31/2015	16:38	c1	yes	yes	yes
4/2/2015	17:53	c1	yes	yes	yes
4/2/2015	17:54	c1	yes	no	no
4/6/2015	11:12	c1	yes	yes	yes
4/6/2015	11:13	c1	yes	no	no
4/7/2015	11:14	c1	yes	yes	yes
4/7/2015	11:15	c1	yes	no	no
4/8/2015	12:32	c1	yes	yes	yes
4/8/2015	12:33	c1	no	no	no
3/9/2015	10:43	c2	yes	yes	yes
3/9/2015	10:46	c2	yes	yes	yes
3/9/2015	10:46	c2	yes	yes	yes
3/9/2015	10:47	c2	yes	yes	yes
3/9/2015	10:48	c2	yes	yes	yes
3/9/2015	12:15	c2	yes	yes	yes
3/9/2015	12:16	c2	yes	yes	yes
3/9/2015	12:18	c2	yes	no	no
3/9/2015	12:21	c2	yes	yes	yes
3/10/2015	10:43	c2	no	no	no
3/10/2015	10:46	c2	yes	yes	yes
3/10/2015	10:47	c2	yes	yes	yes
3/10/2015	10:48	c2	yes	yes	yes
3/10/2015	10:49	c2	yes	yes	yes
3/10/2015	11:34	c2	yes	yes	yes
3/10/2015	11:36	c2	yes	yes	yes
3/10/2015	11:37	c2	no	no	no
3/10/2015	11:39	c2	yes	yes	yes
3/11/2015	10:52	c2	yes	yes	yes
3/11/2015	10:55	c2	yes	yes	yes
3/11/2015	10:56	c2	no	no	no
3/11/2015	10:58	c2	yes	yes	yes
3/11/2015	11:01	c2	yes	yes	yes
3/11/2015	11:37	c2	yes	yes	yes
3/11/2015	11:04	c2	yes	yes	yes
3/11/2015	11:41	c2	yes	yes	yes
3/11/2015	11:42	c2	yes	yes	yes
3/12/2015	10:45	c2	no	no	no
3/12/2015	10:48	c2	yes	yes	yes
3/12/2015	10:49	c2	yes	yes	yes
3/12/2015	10:51	c2	yes	yes	yes

3/12/2015	10:54	c2	yes	yes	yes
3/12/2015	12:09	c2	no	no	no
3/12/2015	12:12	c2	yes	yes	yes
3/12/2015	12:14	c2	yes	yes	yes
3/12/2015	12:17	c2	no	no	no
3/14/2015	10:41	c2	yes	yes	yes
3/14/2015	10:42	c2	yes	no	no
3/14/2015	10:45	c2	yes	yes	yes
3/14/2015	10:46	c2	yes	yes	yes
3/14/2015	10:47	c2	yes	yes	yes
3/14/2015	11:26	c2	no	no	no
3/14/2015	11:28	c2	yes	yes	yes
3/14/2015	11:03	c2	yes	yes	yes
3/14/2015	11:33	c2	yes	yes	yes
3/15/2015	10:45	c2	yes	yes	yes
3/15/2015	10:46	c2	yes	yes	yes
3/15/2015	10:48	c2	yes	yes	yes
3/15/2015	10:49	c2	yes	yes	yes
3/15/2015	10:52	c2	yes	yes	yes
3/15/2015	11:33	c2	yes	yes	yes
3/15/2015	11:34	c2	yes	yes	yes
3/15/2015	11:36	c2	yes	yes	yes
3/15/2015	11:38	c2	yes	yes	yes
3/23/2015	10:42	c2	yes	yes	yes
3/23/2015	10:44	c2	yes	yes	yes
3/25/2015	17:06	c2	yes	yes	yes
3/25/2015	17:07	c2	yes	yes	yes
3/25/2015	17:09	c2	yes	yes	yes
3/29/2015	12:04	c2	yes	yes	yes
3/29/2015	12:42	c2	yes	yes	yes
3/30/2015	16:11	c2	yes	yes	yes
3/30/2015	16:13	c2	yes	yes	yes
3/31/2015	17:11	c2	yes	yes	yes
3/31/2015	17:14	c2	yes	yes	yes
4/2/2015	17:46	c2	yes	yes	yes
4/2/2015	17:47	c2	yes	yes	yes
4/6/2015	11:36	c2	yes	yes	yes
4/6/2015	11:38	c2	yes	yes	yes
4/7/2015	17:16	c2	yes	yes	yes
4/7/2015	17:17	c2	yes	yes	yes
3/9/2015	11:01	c3	yes	yes	yes
3/9/2015	11:03	c3	yes	yes	yes
3/9/2015	11:04	c3	yes	yes	yes
3/9/2015	11:06	c3	yes	yes	yes
3/9/2015	11:07	c3	no	no	no
3/9/2015	12:22	c3	yes	no	no
3/9/2015	12:24	c3	no	no	no
3/9/2015	12:27	c3	yes	yes	yes
3/9/2015	12:28	c3	yes	yes	yes
3/10/2015	11:02	c3	yes	no	no

3/10/2015	11:05	c3	yes	yes	yes
3/10/2015	11:07	c3	yes	no	no
3/10/2015	11:09	c3	yes	yes	yes
3/10/2015	11:01	c3	yes	yes	yes
3/10/2015	11:58	c3	yes	yes	yes
3/10/2015	12:01	c3	yes	no	no
3/10/2015	12:03	c3	yes	yes	yes
3/10/2015	12:06	c3	yes	no	no
3/11/2015	10:31	c3	yes	yes	yes
3/11/2015	10:33	c3	no	no	no
3/11/2015	10:36	c3	yes	no	no
3/11/2015	10:38	c3	yes	yes	yes
3/11/2015	10:39	c3	no	no	no
3/11/2015	12:19	c3	no	no	no
3/11/2015	12:21	c3	yes	yes	yes
3/11/2015	12:23	c3	yes	yes	yes
3/11/2015	12:25	c3	yes	yes	yes
3/12/2015	11:33	c3	no	no	no
3/12/2015	11:36	c3	yes	yes	yes
3/12/2015	11:38	c3	yes	yes	yes
3/12/2015	11:39	c3	yes	yes	yes
3/12/2015	11:06	c3	yes	yes	yes
3/12/2015	11:07	c3	no	no	no
3/12/2015	11:09	c3	no	no	no
3/12/2015	11:12	c3	yes	yes	yes
3/12/2015	11:13	c3	yes	yes	yes
3/14/2015	10:58	c3	yes	yes	yes
3/14/2015	10:59	c3	no	no	no
3/14/2015	11:01	c3	yes	yes	yes
3/14/2015	11:02	c3	yes	yes	yes
3/14/2015	11:04	c3	yes	yes	yes
3/14/2015	11:35	c3	no	no	no
3/14/2015	11:37	c3	yes	yes	yes
3/14/2015	11:39	c3	no	no	no
3/14/2015	11:41	c3	yes	yes	yes
3/15/2015	11:18	c3	yes	yes	yes
3/15/2015	11:19	c3	no	no	no
3/15/2015	11:21	c3	yes	yes	yes
3/15/2015	11:22	c3	no	no	no
3/15/2015	11:24	c3	yes	yes	yes
3/15/2015	11:39	c3	yes	yes	yes
3/15/2015	11:04	c3	yes	yes	yes
3/15/2015	11:42	c3	yes	yes	yes
3/15/2015	11:44	c3	yes	yes	yes
3/25/2015	16:57	c3	yes	yes	yes
3/25/2015	17:00	c3	yes	yes	yes
3/25/2015	17:03	c3	no	no	no
3/27/2015	10:39	c3	no	no	no
3/27/2015	10:42	c3	yes	yes	yes
3/30/2015	12:15	c3	yes	yes	yes

3/30/2015	12:17	c3	yes	yes	yes
3/31/2015	11:42	c3	yes	yes	yes
3/31/2015	11:43	c3	yes	yes	yes
4/2/2015	17:51	c3	yes	yes	yes
4/2/2015	17:52	c3	yes	yes	yes
4/6/2015	11:52	c3	yes	yes	yes
4/6/2015	11:54	c3	yes	yes	yes
4/7/2015	12:03	c3	yes	yes	yes
4/7/2015	12:04	c3	yes	yes	yes
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4/10/2015	11:44	c3	yes	yes	yes
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3/9/2015	10:36	c4	yes	yes	yes
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3/9/2015	10:39	c4	yes	yes	yes
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3/10/2015	12:19	c4	yes	yes	yes
3/10/2015	12:19	c4	yes	yes	yes
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3/10/2015	12:24	c4	no	no	no
3/11/2015	11:23	c4	no	no	no
3/11/2015	11:25	c4	yes	yes	yes
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3/11/2015	11:28	c4	no	no	no
3/11/2015	11:31	c4	yes	yes	yes
3/11/2015	11:44	c4	yes	yes	yes
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3/12/2015	11:27	c4	no	no	no
3/12/2015	11:29	c4	yes	yes	yes
3/12/2015	11:03	c4	yes	yes	no
3/12/2015	11:41	c4	yes	yes	no
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3/12/2015	11:46	c4	yes	yes	yes
3/12/2015	11:48	c4	yes	yes	yes
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3/14/2015	11:17	c4	yes	no	no
3/14/2015	11:19	c4	yes	yes	yes

3/14/2015	11:02	c4	no	no	no
3/14/2015	11:23	c4	yes	yes	yes
3/14/2015	11:53	c4	yes	no	yes
3/14/2015	11:55	c4	yes	yes	yes
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3/15/2015	12:06	c4	no	no	no
3/15/2015	12:08	c4	yes	yes	yes
3/15/2015	12:10	c4	yes	yes	yes
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3/25/2015	15:42	c4	yes	yes	yes
3/25/2015	15:44	c4	yes	yes	yes
3/29/2015	11:43	c4	yes	yes	yes
3/29/2015	11:45	c4	yes	yes	yes
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3/30/2015	12:55	c4	no	no	no
3/31/2015	11:25	c4	yes	yes	yes
3/31/2015	11:26	c4	no	no	no
4/2/2015	17:48	c4	yes	yes	yes
4/2/2015	17:49	c4	yes	no	no
4/4/2015	11:04	c4	yes	yes	yes
4/4/2015	11:05	c4	yes	yes	yes
4/7/2015	11:45	c4	no	no	no
4/7/2015	11:48	c4	yes	yes	yes
4/10/2015	11:46	c4	yes	yes	yes
4/10/2015	11:47	c4	yes	yes	yes
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3/9/2015	12:01	c5	yes	yes	yes
3/9/2015	12:11	c5	yes	yes	yes
3/9/2015	12:13	c5	yes	yes	yes
3/10/2015	11:13	c5	yes	yes	yes
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3/10/2015	11:19	c5	yes	yes	yes
3/10/2015	11:04	c5	yes	yes	yes
3/10/2015	11:42	c5	yes	yes	yes
3/10/2015	11:44	c5	yes	no	no
3/10/2015	11:47	c5	no	no	no

3/11/2015	11:02	c5	yes	yes	yes
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3/11/2015	11:06	c5	yes	yes	yes
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3/11/2015	11:01	c5	yes	no	no
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3/11/2015	12:06	c5	yes	yes	yes
3/11/2015	12:08	c5	yes	yes	yes
3/12/2015	10:36	c5	yes	no	no
3/12/2015	10:39	c5	yes	yes	yes
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3/12/2015	10:44	c5	yes	yes	yes
3/12/2015	12:00	c5	yes	yes	yes
3/12/2015	12:02	c5	yes	no	no
3/12/2015	12:04	c5	yes	yes	yes
3/12/2015	12:06	c5	yes	no	no
3/14/2015	10:34	c5	yes	yes	yes
3/14/2015	10:34	c5	no	no	no
3/14/2015	10:36	c5	yes	yes	yes
3/14/2015	10:37	c5	yes	yes	yes
3/14/2015	10:38	c5	yes	no	no
3/14/2015	12:09	c5	yes	yes	yes
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3/14/2015	12:11	c5	yes	yes	yes
3/14/2015	12:14	c5	yes	yes	yes
3/15/2015	10:53	c5	yes	yes	yes
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3/25/2015	16:32	c5	yes	yes	yes
3/25/2015	16:34	c5	yes	no	no
3/27/2015	12:11	c5	yes	yes	yes
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3/30/2015	11:18	c5	yes	yes	yes
3/30/2015	11:02	c5	no	no	no
3/31/2015	10:34	c5	yes	yes	yes
3/31/2015	10:35	c5	yes	yes	yes
4/2/2015	17:44	c5	yes	yes	yes
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4/4/2015	11:42	c5	yes	yes	yes

4/4/2015	11:43	c5	yes	yes	yes
4/7/2015	12:07	c5	yes	yes	yes
4/7/2015	12:09	c5	no	no	no
3/23/2015	10:03	plant	no	no	no
3/23/2015	10:32	plant	no	no	no
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3/25/2015	10:39	plant	yes	no	no
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4/6/2015	12:01	plant	no	no	no
4/6/2015	12:03	plant	no	no	no
4/6/2015	12:05	plant	no	no	no
4/6/2015	12:07	plant	no	no	no

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4/7/2015	10:23	plant	no	no	no
4/7/2015	10:25	plant	no	no	no
4/7/2015	10:29	plant	no	no	no
4/7/2015	10:31	plant	no	no	no
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4/10/2015	11:41	plant	no	no	no
3/24/2015	11:25	d1	yes	yes	yes
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3/30/2015	16:05	d1	no	no	no
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3/31/2015	10:41	d1	yes	yes	yes
3/31/2015	10:42	d1	yes	yes	yes
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4/2/2015	11:35	d1	yes	yes	yes
4/2/2015	11:36	d1	no	no	no
4/2/2015	11:38	d1	yes	yes	yes
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4/3/2015	11:11	d1	yes	yes	yes
4/3/2015	11:12	d1	yes	yes	yes
4/4/2015	11:07	d1	no	no	no
4/4/2015	11:09	d1	yes	yes	yes
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4/4/2015	11:12	d1	yes	yes	yes
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4/4/2015	11:15	d1	yes	yes	yes
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3/23/2015	11:25	d2	yes	yes	yes
3/23/2015	11:27	d2	no	no	no
3/23/2015	11:03	d2	yes	yes	yes
3/23/2015	11:31	d2	yes	yes	yes
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3/25/2015	11:42	d2	yes	no	no
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3/25/2015	11:49	d2	yes	yes	yes
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3/29/2015	12:37	d2	no	no	no
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3/30/2015	11:52	d2	yes	yes	yes
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3/30/2015	11:56	d2	yes	yes	yes
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4/2/2015	12:17	d2	yes	yes	yes
4/2/2015	12:18	d2	yes	yes	yes
4/2/2015	12:02	d2	no	no	no
4/2/2015	12:22	d2	yes	yes	yes
4/2/2015	12:23	d2	yes	no	no
4/2/2015	12:26	d2	yes	yes	yes
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4/3/2015	10:47	d2	yes	yes	yes
4/3/2015	10:48	d2	yes	no	no
4/6/2015	10:04	d2	yes	yes	yes
4/6/2015	10:41	d2	yes	yes	yes
4/6/2015	10:42	d2	yes	no	no
4/6/2015	10:45	d2	yes	yes	yes
4/6/2015	10:46	d2	yes	yes	yes
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4/7/2015	16:06	d2	yes	no	no
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4/8/2015	11:43	d2	yes	yes	yes
4/8/2015	11:44	d2	yes	yes	yes
4/8/2015	11:47	d2	yes	yes	yes
4/8/2015	11:49	d2	no	no	no
3/24/2015	11:17	d3	no	no	no
3/24/2015	11:19	d3	yes	no	no
3/24/2015	11:22	d3	yes	yes	yes
3/24/2015	11:23	d3	yes	yes	yes
3/24/2015	11:24	d3	yes	yes	yes
3/24/2015	12:27	d3	yes	yes	yes
3/25/2015	16:37	d3	yes	yes	yes
3/25/2015	16:38	d3	yes	yes	yes
3/25/2015	16:04	d3	yes	yes	yes
3/25/2015	16:42	d3	no	no	no
3/25/2015	16:45	d3	no	no	no
3/25/2015	16:47	d3	yes	yes	yes
3/27/2015	11:31	d3	yes	yes	yes
3/27/2015	11:32	d3	yes	yes	yes
3/27/2015	11:33	d3	no	no	no
3/27/2015	11:35	d3	yes	yes	yes
3/27/2015	11:36	d3	yes	no	no

3/27/2015	12:44	d3	yes	no	no
3/27/2015	12:46	d3	yes	yes	yes
3/30/2015	12:02	d3	yes	yes	yes
3/30/2015	12:04	d3	no	no	no
3/30/2015	12:06	d3	no	no	no
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3/30/2015	12:13	d3	no	no	no
3/31/2015	11:57	d3	yes	yes	yes
3/31/2015	11:58	d3	yes	yes	yes
3/31/2015	12:00	d3	no	no	no
3/31/2015	12:03	d3	yes	yes	yes
3/31/2015	12:03	d3	yes	no	no
3/31/2015	12:06	d3	yes	yes	yes
4/2/2015	10:57	d3	yes	yes	yes
4/2/2015	10:59	d3	yes	no	no
4/2/2015	11:03	d3	yes	yes	yes
4/2/2015	11:04	d3	yes	no	no
4/2/2015	11:06	d3	yes	yes	yes
4/2/2015	11:09	d3	yes	yes	yes
4/3/2015	12:02	d3	yes	yes	yes
4/3/2015	12:21	d3	yes	yes	yes
4/3/2015	12:22	d3	yes	yes	yes
4/3/2015	12:24	d3	yes	yes	yes
4/6/2015	11:26	d3	yes	yes	yes
4/6/2015	11:27	d3	yes	yes	yes
4/6/2015	11:28	d3	yes	no	no
4/6/2015	11:31	d3	yes	yes	yes
4/6/2015	11:33	d3	yes	yes	yes
4/6/2015	11:34	d3	yes	yes	yes
4/7/2015	15:35	d3	yes	yes	yes
4/7/2015	15:36	d3	yes	yes	yes
4/7/2015	15:38	d3	yes	yes	yes
4/7/2015	15:38	d3	yes	no	no
4/7/2015	15:41	d3	yes	yes	yes
4/7/2015	15:43	d3	no	no	no
4/7/2015	15:45	d3	yes	no	no
4/8/2015	11:05	d3	yes	yes	yes
4/8/2015	11:06	d3	no	no	no
4/8/2015	11:08	d3	yes	no	no
4/8/2015	11:11	d3	yes	yes	yes
4/8/2015	11:12	d3	yes	yes	yes
4/8/2015	11:15	d3	yes	yes	yes
3/23/2015	11:54	d4	yes	yes	yes
3/23/2015	11:55	d4	yes	yes	yes
3/23/2015	11:55	d4	yes	yes	yes
3/23/2015	11:58	d4	yes	yes	yes
3/23/2015	11:59	d4	no	no	no
3/23/2015	12:14	d4	no	no	no
3/24/2015	11:48	d4	yes	yes	yes

3/24/2015	11:49	d4	yes	yes	yes
3/24/2015	11:51	d4	yes	yes	yes
3/24/2015	11:53	d4	yes	yes	yes
3/24/2015	11:55	d4	yes	yes	yes
3/24/2015	12:29	d4	no	no	no
3/25/2015	11:17	d4	yes	yes	yes
3/25/2015	11:19	d4	no	no	no
3/25/2015	11:21	d4	yes	no	no
3/25/2015	11:23	d4	yes	yes	yes
3/25/2015	11:25	d4	yes	no	no
3/25/2015	11:27	d4	yes	yes	yes
3/27/2015	10:54	d4	yes	yes	yes
3/27/2015	10:55	d4	yes	yes	yes
3/27/2015	10:56	d4	yes	yes	yes
3/27/2015	10:58	d4	no	no	no
3/27/2015	11:01	d4	yes	yes	yes
3/27/2015	12:34	d4	no	no	no
3/27/2015	12:37	d4	yes	yes	yes
3/30/2015	15:33	d4	no	no	no
3/30/2015	16:03	d4	yes	yes	yes
3/30/2015	16:04	d4	yes	yes	yes
3/30/2015	16:06	d4	yes	yes	yes
3/30/2015	16:07	d4	no	no	no
3/30/2015	16:09	d4	yes	yes	yes
3/31/2015	16:58	d4	yes	yes	yes
3/31/2015	17:00	d4	no	no	no
3/31/2015	17:03	d4	yes	yes	yes
3/31/2015	17:05	d4	no	no	no
3/31/2015	17:08	d4	yes	yes	yes
3/31/2015	17:08	d4	yes	yes	yes
4/2/2015	12:37	d4	yes	no	no
4/2/2015	12:39	d4	yes	yes	yes
4/2/2015	12:41	d4	no	no	no
4/2/2015	12:44	d4	yes	no	no
4/2/2015	12:46	d4	yes	yes	yes
4/2/2015	12:48	d4	yes	yes	yes
4/4/2015	10:35	d4	yes	yes	yes
4/4/2015	10:37	d4	no	no	no
4/4/2015	10:04	d4	yes	yes	yes
4/4/2015	10:41	d4	yes	no	no
4/7/2015	16:19	d4	yes	yes	yes
4/7/2015	16:21	d4	yes	no	no
4/7/2015	16:24	d4	no	no	no
4/7/2015	16:26	d4	yes	yes	yes
4/7/2015	16:27	d4	yes	yes	yes
4/7/2015	16:28	d4	no	no	no
4/7/2015	16:30	d4	yes	yes	yes
4/10/2015	10:30	d4	yes	yes	yes
4/10/2015	10:32	d4	yes	yes	yes
4/10/2015	10:34	d4	yes	no	no

4/10/2015	10:37	d4	yes	yes	yes
4/10/2015	10:39	d4	no	no	no
4/10/2015	10:41	d4	yes	yes	yes
3/23/2015	12:02	d5	yes	no	no
3/23/2015	12:05	d5	no	no	no
3/23/2015	12:07	d5	no	no	no
3/23/2015	12:09	d5	yes	yes	yes
3/23/2015	12:11	d5	yes	no	no
3/25/2015	16:06	d5	yes	yes	yes
3/25/2015	16:08	d5	yes	no	no
3/25/2015	16:01	d5	no	no	no
3/25/2015	16:12	d5	yes	yes	yes
3/25/2015	16:13	d5	no	no	no
3/25/2015	16:16	d5	yes	yes	yes
3/27/2015	11:53	d5	no	no	no
3/27/2015	11:56	d5	yes	yes	yes
3/27/2015	11:57	d5	yes	yes	yes
3/27/2015	11:58	d5	yes	no	no
3/27/2015	12:00	d5	no	no	no
3/27/2015	12:39	d5	no	no	no
3/27/2015	12:41	d5	no	no	no
3/30/2015	17:12	d5	yes	yes	yes
3/30/2015	17:15	d5	yes	yes	yes
3/30/2015	17:17	d5	yes	no	no
3/30/2015	17:02	d5	no	no	no
3/30/2015	17:22	d5	yes	yes	yes
3/30/2015	17:23	d5	yes	yes	yes
3/31/2015	17:17	d5	no	no	no
3/31/2015	17:19	d5	no	no	no
3/31/2015	17:22	d5	yes	yes	yes
3/31/2015	17:22	d5	no	no	no
3/31/2015	17:25	d5	no	no	no
3/31/2015	17:28	d5	yes	no	no
4/2/2015	17:00	d5	no	no	no
4/2/2015	17:02	d5	yes	no	no
4/2/2015	17:05	d5	yes	yes	yes
4/2/2015	17:07	d5	yes	yes	yes
4/2/2015	17:09	d5	no	no	no
4/2/2015	17:12	d5	no	no	no
4/3/2015	11:30	d5	no	no	no
4/3/2015	11:32	d5	yes	yes	yes
4/3/2015	11:34	d5	yes	no	no
4/3/2015	11:37	d5	no	no	no
4/3/2015	11:39	d5	yes	yes	no
4/6/2015	11:00	d5	no	no	no
4/6/2015	11:03	d5	yes	yes	yes
4/6/2015	11:04	d5	yes	no	no
4/6/2015	11:07	d5	yes	yes	yes
4/6/2015	11:08	d5	yes	yes	yes
4/6/2015	11:01	d5	yes	yes	yes

4/7/2015	11:50	d5	no	no	no
4/7/2015	11:52	d5	yes	yes	yes
4/7/2015	11:54	d5	no	no	no
4/7/2015	11:56	d5	yes	yes	yes
4/7/2015	11:58	d5	yes	yes	yes
4/7/2015	12:00	d5	yes	yes	yes
4/7/2015	12:01	d5	no	no	no
4/10/2015	11:18	d5	yes	yes	yes
4/10/2015	11:20	d5	yes	yes	yes
4/10/2015	11:21	d5	yes	yes	yes
4/10/2015	11:22	d5	yes	yes	yes
4/10/2015	11:24	d5	no	no	no
4/10/2015	11:26	d5	no	no	no

% 12:OH	% (E,E) 8,10-12:OH	% Z8-12:OH	Pher:Plant ratio
a0=3%	b0=3%	c0=0% (control)	plant=plant alone (control)
a1=10%	b1=10%	c1=3%	d1=1:0.1
a2=20%	b2=20%	c2=10% (control)	d2=1:1
a3=50%	b3=50%	c3=20%	d3=1:10
a4=100%	b4=100%	c4=50%	d4=1:100
		c5=100%	d5=1:1000

date	time	trt	fly	of	contact
11-abr.-15	10.38	oh1	yes	yes	yes
11-abr.-15	10.39	oh1	yes	yes	yes
11-abr.-15	10.41	oh1	yes	no	no
11-abr.-15	10.43	oh1	yes	yes	yes
11-abr.-15	10.45	oh1	no	no	no
11-abr.-15	12.2	oh1	yes	yes	yes
12-abr.-15	10.32	oh1	yes	yes	yes
12-abr.-15	10.32	oh1	yes	yes	yes
12-abr.-15	10.33	oh1	no	no	no
12-abr.-15	10.36	oh1	yes	yes	yes
12-abr.-15	10.37	oh1	yes	yes	yes
12-abr.-15	10.38	oh1	no	no	no
13-abr.-15	10.57	oh1	yes	yes	yes
13-abr.-15	10.58	oh1	no	no	no
13-abr.-15	11	oh1	no	no	no
13-abr.-15	11.03	oh1	yes	yes	yes
13-abr.-15	11.05	oh1	yes	yes	yes
13-abr.-15	11.07	oh1	no	no	no
14-abr.-15	12.2	oh1	no	no	no
14-abr.-15	12.22	oh1	no	no	no
14-abr.-15	12.25	oh1	yes	yes	yes
14-abr.-15	12.26	oh1	no	no	no
14-abr.-15	12.28	oh1	no	no	no
14-abr.-15	12.3	oh1	yes	no	no
15-abr.-15	11.58	oh1	no	no	no
15-abr.-15	12	oh1	yes	no	no
15-abr.-15	12.02	oh1	yes	yes	yes
15-abr.-15	12.05	oh1	yes	yes	yes
15-abr.-15	12.08	oh1	no	no	no
15-abr.-15	12.1	oh1	yes	yes	yes
16-abr.-15	11.27	oh1	no	no	no
16-abr.-15	11.29	oh1	no	no	no
16-abr.-15	11.31	oh1	yes	yes	yes
16-abr.-15	11.33	oh1	yes	yes	yes
16-abr.-15	11.34	oh1	no	no	no
16-abr.-15	11.37	oh1	yes	yes	yes
17-abr.-15	11.16	oh1	yes	yes	yes
17-abr.-15	11.17	oh1	no	no	no
17-abr.-15	11.19	oh1	yes	yes	yes
17-abr.-15	11.22	oh1	yes	yes	yes
17-abr.-15	11.24	oh1	yes	yes	yes
17-abr.-15	11.25	oh1	no	no	no
2-may.-15	12.18	oh1	no	no	no
2-may.-15	12.2	oh1	yes	yes	yes
2-may.-15	12.23	oh1	no	no	no
2-may.-15	12.25	oh1	yes	yes	yes
4-may.-15	10.49	oh1	yes	yes	yes
4-may.-15	10.5	oh1	no	no	no
4-may.-15	10.53	oh1	yes	yes	yes

treatment	
oh1	Pheromone without Z8-12:O
oh10	phermone with 10% Z8-12:O
plant1	suboptimal pher + 0.001% pl
plant2	suboptimal pher + 0.01% pla
plant3	suboptimal pher + 0.1% plan
z3ha	suboptimal pher + 0.07% Z3-
z3oh	suboptimal pher + 0.14% Z3-
e2al	suboptimal pher + 0.002% E2
bza	suboptimal pher + 0.013% be
bzn	suboptimal pher + 0.001% be

4-may.-15	10.56	oh1	yes	yes	yes
4-may.-15	10.57	oh1	no	no	no
4-may.-15	10.59	oh1	no	no	no
16-abr.-15	12.05	oh10	yes	yes	yes
16-abr.-15	12.07	oh10	yes	no	no
16-abr.-15	12.1	oh10	yes	yes	yes
16-abr.-15	12.12	oh10	yes	yes	yes
16-abr.-15	12.14	oh10	yes	yes	yes
16-abr.-15	12.15	oh10	yes	yes	yes
11-abr.-15	10.48	oh10	yes	yes	yes
11-abr.-15	10.49	oh10	yes	yes	yes
11-abr.-15	10.51	oh10	yes	yes	yes
11-abr.-15	10.52	oh10	yes	yes	yes
11-abr.-15	10.54	oh10	yes	yes	yes
11-abr.-15	12.13	oh10	yes	yes	yes
12-abr.-15	11	oh10	yes	yes	yes
12-abr.-15	11.02	oh10	yes	yes	yes
12-abr.-15	11.04	oh10	yes	yes	yes
12-abr.-15	11.06	oh10	yes	yes	yes
12-abr.-15	11.07	oh10	yes	yes	yes
12-abr.-15	11.09	oh10	yes	yes	yes
13-abr.-15	12.25	oh10	yes	yes	yes
13-abr.-15	12.26	oh10	no	no	no
13-abr.-15	12.29	oh10	yes	yes	yes
13-abr.-15	12.29	oh10	yes	yes	yes
13-abr.-15	12.3	oh10	yes	yes	yes
13-abr.-15	12.33	oh10	yes	yes	yes
14-abr.-15	11.18	oh10	yes	yes	yes
14-abr.-15	11.2	oh10	yes	yes	yes
14-abr.-15	11.22	oh10	yes	yes	yes
14-abr.-15	11.24	oh10	yes	yes	yes
14-abr.-15	11.26	oh10	yes	yes	yes
14-abr.-15	11.27	oh10	yes	yes	yes
15-abr.-15	11.46	oh10	yes	no	no
15-abr.-15	11.49	oh10	yes	yes	yes
15-abr.-15	11.51	oh10	yes	yes	yes
15-abr.-15	11.52	oh10	yes	yes	yes
15-abr.-15	11.55	oh10	yes	yes	yes
15-abr.-15	11.55	oh10	yes	yes	yes
17-abr.-15	11.41	oh10	yes	yes	yes
17-abr.-15	11.42	oh10	yes	yes	yes
17-abr.-15	11.44	oh10	no	no	no
17-abr.-15	11.47	oh10	yes	yes	yes
17-abr.-15	11.49	oh10	no	no	no
17-abr.-15	11.51	oh10	yes	yes	yes
2-may.-15	12.01	oh10	yes	yes	yes
2-may.-15	12.03	oh10	yes	yes	yes
2-may.-15	12.04	oh10	no	no	no
2-may.-15	12.06	oh10	yes	yes	yes
3-may.-15	10.38	oh10	yes	yes	yes

3-may.-15	10.4	oh10	no	no	no
3-may.-15	10.42	oh10	yes	yes	yes
3-may.-15	10.43	oh10	yes	yes	yes
4-may.-15	11.13	oh10	no	no	no
4-may.-15	11.15	oh10	yes	yes	yes
4-may.-15	11.17	oh10	yes	yes	yes
4-may.-15	11.18	oh10	yes	yes	yes
4-may.-15	11.2	oh10	yes	yes	yes
4-may.-15	11.21	oh10	no	no	no
11-abr.-15	11.12	bza	yes	no	no
11-abr.-15	11.14	bza	yes	yes	yes
11-abr.-15	11.15	bza	yes	yes	yes
11-abr.-15	11.16	bza	yes	yes	yes
11-abr.-15	11.17	bza	yes	yes	yes
11-abr.-15	12.09	bza	yes	no	no
12-abr.-15	11.31	bza	yes	yes	yes
12-abr.-15	11.32	bza	yes	yes	yes
12-abr.-15	11.34	bza	no	no	no
12-abr.-15	11.36	bza	yes	yes	yes
12-abr.-15	11.37	bza	no	no	no
12-abr.-15	11.4	bza	yes	yes	yes
13-abr.-15	11.21	bza	no	no	no
13-abr.-15	11.23	bza	yes	no	no
13-abr.-15	11.26	bza	no	no	no
13-abr.-15	11.28	bza	yes	yes	yes
13-abr.-15	11.29	bza	yes	yes	yes
13-abr.-15	11.31	bza	no	no	no
14-abr.-15	11.42	bza	yes	no	no
14-abr.-15	11.44	bza	yes	yes	yes
14-abr.-15	11.45	bza	yes	yes	yes
14-abr.-15	11.47	bza	yes	yes	yes
14-abr.-15	11.48	bza	yes	yes	yes
14-abr.-15	11.5	bza	no	no	no
15-abr.-15	10.3	bza	yes	yes	yes
15-abr.-15	10.31	bza	yes	no	no
15-abr.-15	10.33	bza	no	no	no
15-abr.-15	10.36	bza	yes	yes	yes
15-abr.-15	10.36	bza	yes	yes	yes
15-abr.-15	10.37	bza	no	no	no
16-abr.-15	11.39	bza	yes	yes	yes
16-abr.-15	11.41	bza	no	no	no
16-abr.-15	11.44	bza	no	no	no
16-abr.-15	11.46	bza	yes	yes	yes
16-abr.-15	11.47	bza	yes	yes	yes
16-abr.-15	11.49	bza	yes	yes	yes
17-abr.-15	11.54	bza	no	no	no
17-abr.-15	11.56	bza	yes	yes	yes
17-abr.-15	11.57	bza	yes	yes	yes
17-abr.-15	12	bza	yes	yes	yes
17-abr.-15	12.03	bza	no	no	no

17-abr.-15	12.05	bza	yes	yes	yes
2-may.-15	12.43	bza	yes	yes	yes
2-may.-15	12.45	bza	no	no	no
2-may.-15	12.48	bza	yes	yes	yes
2-may.-15	12.51	bza	no	no	no
3-may.-15	11.07	bza	yes	yes	yes
3-may.-15	11.09	bza	no	no	no
3-may.-15	11.12	bza	yes	yes	yes
3-may.-15	11.14	bza	no	no	no
4-may.-15	10.36	bza	no	no	no
4-may.-15	10.38	bza	yes	yes	yes
4-may.-15	10.4	bza	yes	yes	yes
4-may.-15	10.41	bza	yes	yes	yes
4-may.-15	10.44	bza	no	no	no
4-may.-15	10.46	bza	yes	no	no
11-abr.-15	10.32	bzn	yes	yes	yes
11-abr.-15	10.33	bzn	yes	yes	yes
11-abr.-15	10.34	bzn	yes	yes	yes
11-abr.-15	10.34	bzn	no	no	no
11-abr.-15	10.37	bzn	yes	yes	yes
11-abr.-15	12.17	bzn	yes	yes	yes
12-abr.-15	10.5	bzn	yes	yes	yes
12-abr.-15	10.52	bzn	yes	yes	yes
12-abr.-15	10.53	bzn	no	no	no
12-abr.-15	10.55	bzn	yes	yes	yes
12-abr.-15	10.57	bzn	yes	yes	yes
12-abr.-15	10.59	bzn	yes	yes	yes
13-abr.-15	11.34	bzn	no	no	no
13-abr.-15	11.36	bzn	yes	yes	yes
13-abr.-15	11.37	bzn	no	no	no
13-abr.-15	11.4	bzn	no	no	no
13-abr.-15	11.42	bzn	yes	no	no
13-abr.-15	11.44	bzn	no	no	no
14-abr.-15	10.45	bzn	yes	yes	yes
14-abr.-15	10.47	bzn	yes	no	no
14-abr.-15	10.49	bzn	yes	yes	yes
14-abr.-15	10.51	bzn	no	no	no
14-abr.-15	10.54	bzn	yes	yes	yes
14-abr.-15	10.54	bzn	no	no	no
15-abr.-15	11.36	bzn	yes	no	no
15-abr.-15	11.38	bzn	yes	yes	yes
15-abr.-15	11.39	bzn	yes	yes	yes
15-abr.-15	11.4	bzn	no	no	no
15-abr.-15	11.43	bzn	yes	yes	yes
15-abr.-15	11.45	bzn	yes	yes	yes
16-abr.-15	10.41	bzn	yes	yes	yes
16-abr.-15	10.43	bzn	yes	yes	yes
16-abr.-15	10.45	bzn	no	no	no
16-abr.-15	10.47	bzn	yes	yes	yes
16-abr.-15	10.49	bzn	yes	yes	yes

16-abr.-15	10.5	bzn	no	no	no
17-abr.-15	12.08	bzn	yes	yes	yes
17-abr.-15	12.1	bzn	yes	no	no
17-abr.-15	12.12	bzn	yes	yes	yes
17-abr.-15	12.13	bzn	yes	yes	yes
17-abr.-15	12.14	bzn	yes	yes	yes
17-abr.-15	12.17	bzn	yes	no	no
2-may.-15	11.15	bzn	no	no	no
2-may.-15	11.17	bzn	yes	yes	yes
2-may.-15	11.19	bzn	yes	no	no
2-may.-15	11.21	bzn	yes	yes	yes
3-may.-15	11.22	bzn	yes	yes	yes
3-may.-15	11.23	bzn	yes	yes	yes
3-may.-15	11.25	bzn	no	no	no
3-may.-15	11.28	bzn	no	no	no
4-may.-15	11.43	bzn	no	no	no
4-may.-15	11.46	bzn	yes	yes	yes
4-may.-15	11.47	bzn	yes	yes	yes
4-may.-15	11.48	bzn	yes	yes	no
4-may.-15	11.51	bzn	yes	yes	yes
4-may.-15	11.53	bzn	yes	yes	yes
11-abr.-15	11.19	e2al	yes	yes	yes
11-abr.-15	11.2	e2al	yes	yes	yes
11-abr.-15	11.21	e2al	yes	yes	yes
11-abr.-15	11.22	e2al	yes	yes	yes
11-abr.-15	11.24	e2al	yes	yes	yes
11-abr.-15	12.06	e2al	no	no	no
12-abr.-15	12.02	e2al	yes	yes	yes
12-abr.-15	12.04	e2al	yes	yes	yes
12-abr.-15	12.06	e2al	yes	yes	yes
12-abr.-15	12.07	e2al	no	no	no
12-abr.-15	12.09	e2al	yes	yes	yes
12-abr.-15	12.1	e2al	yes	yes	yes
13-abr.-15	10.33	e2al	yes	yes	yes
13-abr.-15	10.34	e2al	yes	yes	yes
13-abr.-15	10.36	e2al	no	no	no
13-abr.-15	10.38	e2al	yes	yes	yes
13-abr.-15	10.39	e2al	no	no	no
13-abr.-15	10.41	e2al	no	no	no
14-abr.-15	12.06	e2al	yes	yes	yes
14-abr.-15	12.09	e2al	no	no	no
14-abr.-15	12.11	e2al	yes	yes	yes
14-abr.-15	12.13	e2al	no	no	no
14-abr.-15	12.15	e2al	yes	yes	yes
14-abr.-15	12.17	e2al	no	no	no
15-abr.-15	10.5	e2al	yes	yes	yes
15-abr.-15	10.52	e2al	yes	yes	yes
15-abr.-15	10.54	e2al	yes	yes	yes
15-abr.-15	10.56	e2al	yes	yes	yes
15-abr.-15	10.57	e2al	no	no	no

15-abr.-15	10.59	e2al	no	no	no
16-abr.-15	12.17	e2al	no	no	no
16-abr.-15	12.2	e2al	yes	yes	yes
16-abr.-15	12.21	e2al	yes	yes	yes
16-abr.-15	12.24	e2al	no	no	no
16-abr.-15	12.26	e2al	yes	yes	yes
16-abr.-15	12.28	e2al	no	no	no
17-abr.-15	11.05	e2al	yes	yes	yes
17-abr.-15	11.06	e2al	yes	no	no
17-abr.-15	11.08	e2al	yes	yes	yes
17-abr.-15	11.1	e2al	yes	yes	yes
17-abr.-15	11.12	e2al	yes	yes	yes
17-abr.-15	11.13	e2al	yes	yes	yes
2-may.-15	11.39	e2al	no	no	no
2-may.-15	11.42	e2al	yes	yes	yes
2-may.-15	11.43	e2al	yes	yes	yes
2-may.-15	11.45	e2al	no	no	no
3-may.-15	10.45	e2al	no	no	no
3-may.-15	10.47	e2al	yes	yes	yes
3-may.-15	10.5	e2al	no	no	no
3-may.-15	10.52	e2al	yes	yes	yes
4-may.-15	12.15	e2al	no	no	no
4-may.-15	12.17	e2al	yes	yes	yes
4-may.-15	12.19	e2al	yes	yes	yes
4-may.-15	12.2	e2al	no	no	no
4-may.-15	12.22	e2al	yes	yes	yes
4-may.-15	12.23	e2al	yes	yes	yes
11-abr.-15	10.25	hex	no	no	no
11-abr.-15	10.27	hex	no	no	no
11-abr.-15	10.29	hex	no	no	no
11-abr.-15	12.22	hex	no	no	no
12-abr.-15	10.24	hex	no	no	no
12-abr.-15	10.26	hex	no	no	no
12-abr.-15	10.29	hex	no	no	no
13-abr.-15	10.25	hex	no	no	no
13-abr.-15	10.27	hex	no	no	no
13-abr.-15	10.29	hex	no	no	no
14-abr.-15	10.25	hex	no	no	no
14-abr.-15	10.27	hex	no	no	no
14-abr.-15	10.29	hex	no	no	no
15-abr.-15	10.23	hex	no	no	no
15-abr.-15	10.25	hex	no	no	no
15-abr.-15	10.27	hex	no	no	no
16-abr.-15	10.23	hex	no	no	no
16-abr.-15	10.25	hex	no	no	no
16-abr.-15	10.27	hex	no	no	no
17-abr.-15	12.45	hex	no	no	no
17-abr.-15	12.47	hex	no	no	no
17-abr.-15	12.49	hex	no	no	no
2-may.-15	11.48	hex	no	no	no

2-may.-15	11.51	hex	no	no	no
3-may.-15	11.5	hex	no	no	no
3-may.-15	11.52	hex	no	no	no
4-may.-15	12.25	hex	no	no	no
4-may.-15	12.27	hex	no	no	no
4-may.-15	12.3	hex	no	no	no
3-may.-15	12.04	o%oh	yes	yes	yes
3-may.-15	12.06	o%oh	no	no	no
3-may.-15	12.09	o%oh	no	no	no
3-may.-15	12.11	o%oh	yes	yes	yes
11-abr.-15	11.35	plant	no	no	no
11-abr.-15	11.38	plant	no	no	no
11-abr.-15	11.4	plant	no	no	no
11-abr.-15	11.42	plant	no	no	no
11-abr.-15	11.44	plant	no	no	no
11-abr.-15	12.25	plant	no	no	no
12-abr.-15	12.12	plant	no	no	no
12-abr.-15	12.14	plant	no	no	no
12-abr.-15	12.16	plant	no	no	no
12-abr.-15	12.19	plant	no	no	no
12-abr.-15	12.21	plant	no	no	no
12-abr.-15	12.24	plant	no	no	no
13-abr.-15	12.35	plant	no	no	no
13-abr.-15	12.37	plant	no	no	no
13-abr.-15	12.4	plant	no	no	no
13-abr.-15	12.42	plant	no	no	no
13-abr.-15	12.45	plant	no	no	no
13-abr.-15	12.47	plant	no	no	no
14-abr.-15	12.33	plant	no	no	no
14-abr.-15	12.35	plant	no	no	no
14-abr.-15	12.37	plant	no	no	no
14-abr.-15	12.4	plant	no	no	no
14-abr.-15	12.42	plant	no	no	no
14-abr.-15	12.45	plant	no	no	no
15-abr.-15	12.22	plant	yes	no	no
15-abr.-15	12.24	plant	no	no	no
15-abr.-15	12.27	plant	no	no	no
15-abr.-15	12.29	plant	no	no	no
15-abr.-15	12.31	plant	no	no	no
15-abr.-15	12.34	plant	no	no	no
16-abr.-15	12.3	plant	no	no	no
16-abr.-15	12.33	plant	no	no	no
16-abr.-15	12.35	plant	no	no	no
16-abr.-15	12.37	plant	no	no	no
16-abr.-15	12.4	plant	no	no	no
16-abr.-15	12.42	plant	no	no	no
17-abr.-15	12.31	plant	no	no	no
17-abr.-15	12.33	plant	no	no	no
17-abr.-15	12.35	plant	no	no	no
17-abr.-15	12.38	plant	no	no	no

17-abr.-15	12.4	plant	no	no	no
17-abr.-15	12.42	plant	no	no	no
2-may.-15	12.37	plant	no	no	no
2-may.-15	12.4	plant	no	no	no
3-may.-15	11.02	plant	no	no	no
3-may.-15	11.04	plant	no	no	no
4-may.-15	10.23	plant	no	no	no
4-may.-15	10.25	plant	no	no	no
4-may.-15	10.27	plant	no	no	no
4-may.-15	10.29	plant	no	no	no
4-may.-15	10.31	plant	no	no	no
4-may.-15	10.33	plant	no	no	no
11-abr.-15	10.55	plant1	yes	no	no
11-abr.-15	10.58	plant1	yes	yes	yes
11-abr.-15	11	plant1	yes	yes	yes
11-abr.-15	11	plant1	no	no	no
11-abr.-15	11.03	plant1	yes	yes	yes
11-abr.-15	12.19	plant1	yes	yes	yes
12-abr.-15	11.51	plant1	yes	yes	yes
12-abr.-15	11.53	plant1	yes	no	no
12-abr.-15	11.55	plant1	yes	yes	yes
12-abr.-15	11.56	plant1	yes	no	no
12-abr.-15	11.57	plant1	yes	yes	yes
12-abr.-15	12	plant1	yes	yes	yes
13-abr.-15	12.11	plant1	yes	yes	yes
13-abr.-15	12.13	plant1	yes	yes	yes
13-abr.-15	12.15	plant1	no	no	no
13-abr.-15	12.17	plant1	no	no	no
13-abr.-15	12.19	plant1	yes	yes	yes
13-abr.-15	12.22	plant1	no	no	no
14-abr.-15	11.29	plant1	no	no	no
14-abr.-15	11.32	plant1	yes	yes	yes
14-abr.-15	11.34	plant1	yes	yes	yes
14-abr.-15	11.35	plant1	yes	yes	yes
14-abr.-15	11.36	plant1	no	no	no
14-abr.-15	11.38	plant1	no	no	no
15-abr.-15	11.14	plant1	yes	yes	yes
15-abr.-15	11.16	plant1	yes	yes	yes
15-abr.-15	11.17	plant1	no	no	no
15-abr.-15	11.19	plant1	yes	no	no
15-abr.-15	11.21	plant1	yes	yes	yes
15-abr.-15	11.23	plant1	yes	yes	yes
16-abr.-15	10.3	plant1	no	no	no
16-abr.-15	10.32	plant1	yes	yes	yes
16-abr.-15	10.33	plant1	yes	yes	yes
16-abr.-15	10.34	plant1	yes	yes	yes
16-abr.-15	10.36	plant1	no	no	no
16-abr.-15	10.38	plant1	no	no	no
17-abr.-15	11.28	plant1	yes	no	no
17-abr.-15	11.31	plant1	yes	yes	yes

17-abr.-15	11.32	plant1	yes	yes	yes
17-abr.-15	11.35	plant1	yes	yes	yes
17-abr.-15	11.36	plant1	yes	yes	yes
17-abr.-15	11.38	plant1	yes	no	no
2-may.-15	11.53	plant1	yes	yes	yes
2-may.-15	11.54	plant1	yes	yes	yes
2-may.-15	11.56	plant1	no	no	no
2-may.-15	11.58	plant1	no	no	no
3-may.-15	11.4	plant1	yes	yes	yes
3-may.-15	11.42	plant1	no	no	no
3-may.-15	11.44	plant1	no	no	no
3-may.-15	11.47	plant1	no	no	no
4-may.-15	11.02	plant1	yes	no	no
4-may.-15	11.05	plant1	yes	yes	yes
4-may.-15	11.06	plant1	yes	yes	yes
4-may.-15	11.07	plant1	no	no	no
4-may.-15	11.1	plant1	yes	yes	yes
4-may.-15	11.11	plant1	yes	yes	yes
11-abr.-15	11.55	plant2	yes	yes	yes
11-abr.-15	11.56	plant2	yes	yes	yes
11-abr.-15	11.58	plant2	yes	yes	yes
11-abr.-15	11.59	plant2	yes	yes	yes
11-abr.-15	12.01	plant2	yes	yes	yes
11-abr.-15	12.02	plant2	yes	yes	yes
12-abr.-15	11.43	plant2	yes	yes	yes
12-abr.-15	11.45	plant2	yes	yes	yes
12-abr.-15	11.45	plant2	yes	yes	yes
12-abr.-15	11.46	plant2	no	no	no
12-abr.-15	11.48	plant2	yes	yes	yes
12-abr.-15	11.49	plant2	yes	yes	yes
13-abr.-15	10.43	plant2	no	no	no
13-abr.-15	10.45	plant2	no	no	no
13-abr.-15	10.48	plant2	yes	yes	yes
13-abr.-15	10.49	plant2	no	no	no
13-abr.-15	10.51	plant2	yes	yes	yes
13-abr.-15	10.54	plant2	no	no	no
14-abr.-15	11.08	plant2	no	no	no
14-abr.-15	11.1	plant2	yes	yes	yes
14-abr.-15	11.11	plant2	yes	yes	yes
14-abr.-15	11.13	plant2	yes	yes	yes
14-abr.-15	11.14	plant2	yes	yes	yes
14-abr.-15	11.15	plant2	no	no	no
15-abr.-15	12.12	plant2	yes	yes	yes
15-abr.-15	12.13	plant2	no	no	no
15-abr.-15	12.15	plant2	yes	yes	yes
15-abr.-15	12.16	plant2	yes	yes	yes
15-abr.-15	12.18	plant2	yes	yes	yes
15-abr.-15	12.19	plant2	yes	yes	yes
16-abr.-15	11.52	plant2	no	no	no
16-abr.-15	11.54	plant2	yes	yes	yes

16-abr.-15	11.56	plant2	yes	yes	yes
16-abr.-15	11.57	plant2	no	no	no
16-abr.-15	12	plant2	yes	yes	yes
16-abr.-15	12.02	plant2	yes	yes	yes
17-abr.-15	10.39	plant2	no	no	no
17-abr.-15	10.41	plant2	yes	yes	yes
17-abr.-15	10.44	plant2	yes	yes	yes
17-abr.-15	10.46	plant2	yes	yes	yes
17-abr.-15	10.49	plant2	yes	yes	yes
17-abr.-15	10.5	plant2	no	no	no
2-may.-15	12.27	plant2	no	no	no
2-may.-15	12.3	plant2	yes	yes	yes
2-may.-15	12.32	plant2	no	no	no
2-may.-15	12.35	plant2	yes	yes	yes
3-may.-15	11.54	plant2	yes	yes	yes
3-may.-15	11.57	plant2	yes	yes	yes
3-may.-15	12	plant2	no	no	no
3-may.-15	12.02	plant2	no	no	no
4-may.-15	11.55	plant2	no	no	no
4-may.-15	11.57	plant2	yes	yes	yes
4-may.-15	11.59	plant2	yes	yes	yes
4-may.-15	12	plant2	yes	yes	yes
4-may.-15	12.02	plant2	no	no	no
4-may.-15	12.04	plant2	yes	yes	yes
11-abr.-15	11.04	plant3	yes	yes	yes
11-abr.-15	11.05	plant3	yes	yes	yes
11-abr.-15	11.07	plant3	yes	yes	yes
11-abr.-15	11.08	plant3	yes	yes	yes
11-abr.-15	11.1	plant3	yes	yes	yes
11-abr.-15	12.15	plant3	yes	yes	yes
12-abr.-15	10.41	plant3	yes	yes	yes
12-abr.-15	10.42	plant3	yes	yes	yes
12-abr.-15	10.43	plant3	yes	yes	yes
12-abr.-15	10.44	plant3	yes	yes	yes
12-abr.-15	10.45	plant3	yes	yes	yes
12-abr.-15	10.47	plant3	yes	no	no
13-abr.-15	11.47	plant3	no	no	no
13-abr.-15	11.49	plant3	yes	yes	yes
13-abr.-15	11.5	plant3	yes	yes	yes
13-abr.-15	11.51	plant3	yes	no	no
13-abr.-15	11.54	plant3	yes	yes	yes
13-abr.-15	11.55	plant3	yes	yes	yes
14-abr.-15	11.53	plant3	yes	yes	yes
14-abr.-15	11.55	plant3	yes	yes	yes
14-abr.-15	11.57	plant3	yes	yes	yes
14-abr.-15	11.58	plant3	yes	yes	yes
14-abr.-15	12	plant3	no	no	no
14-abr.-15	12.03	plant3	yes	yes	yes
15-abr.-15	10.4	plant3	yes	yes	yes
15-abr.-15	10.41	plant3	yes	yes	yes

15-abr.-15	10.42	plant3	yes	yes	yes
15-abr.-15	10.43	plant3	yes	yes	yes
15-abr.-15	10.46	plant3	yes	yes	yes
15-abr.-15	10.48	plant3	yes	yes	yes
16-abr.-15	11.16	plant3	yes	yes	yes
16-abr.-15	11.18	plant3	no	no	no
16-abr.-15	11.2	plant3	yes	yes	yes
16-abr.-15	11.21	plant3	yes	yes	yes
16-abr.-15	11.23	plant3	yes	yes	yes
16-abr.-15	11.24	plant3	no	no	no
17-abr.-15	10.28	plant3	yes	yes	yes
17-abr.-15	10.3	plant3	yes	yes	yes
17-abr.-15	10.32	plant3	yes	yes	yes
17-abr.-15	10.33	plant3	yes	no	no
17-abr.-15	10.35	plant3	yes	yes	yes
17-abr.-15	10.36	plant3	yes	yes	yes
2-may.-15	11.24	plant3	no	no	no
2-may.-15	11.26	plant3	yes	yes	yes
2-may.-15	11.28	plant3	yes	yes	yes
2-may.-15	11.29	plant3	yes	yes	yes
3-may.-15	10.54	plant3	yes	yes	yes
3-may.-15	10.57	plant3	yes	yes	yes
3-may.-15	10.58	plant3	yes	yes	yes
3-may.-15	11.01	plant3	no	no	no
4-may.-15	11.34	plant3	yes	yes	yes
4-may.-15	11.36	plant3	yes	yes	yes
4-may.-15	11.36	plant3	yes	yes	yes
4-may.-15	11.39	plant3	no	no	no
4-may.-15	11.41	plant3	yes	yes	yes
4-may.-15	11.42	plant3	yes	yes	yes
11-abr.-15	11.26	z3ha	yes	yes	yes
11-abr.-15	11.29	z3ha	yes	yes	yes
11-abr.-15	11.3	z3ha	yes	yes	yes
11-abr.-15	11.31	z3ha	yes	yes	yes
11-abr.-15	11.32	z3ha	no	no	no
11-abr.-15	12.08	z3ha	yes	yes	yes
12-abr.-15	11.11	z3ha	no	no	no
12-abr.-15	11.13	z3ha	yes	no	no
12-abr.-15	11.15	z3ha	yes	yes	yes
12-abr.-15	11.18	z3ha	yes	yes	yes
12-abr.-15	11.19	z3ha	yes	yes	yes
12-abr.-15	11.2	z3ha	yes	yes	yes
13-abr.-15	11.58	z3ha	yes	yes	yes
13-abr.-15	12	z3ha	no	no	no
13-abr.-15	12.02	z3ha	no	no	no
13-abr.-15	12.04	z3ha	yes	yes	yes
13-abr.-15	12.06	z3ha	yes	yes	yes
13-abr.-15	12.08	z3ha	yes	no	no
14-abr.-15	10.57	z3ha	yes	yes	yes
14-abr.-15	10.59	z3ha	yes	no	no

14-abr.-15	11.01	z3ha	yes	yes	yes
14-abr.-15	11.03	z3ha	yes	yes	yes
14-abr.-15	11.05	z3ha	yes	yes	yes
14-abr.-15	11.06	z3ha	yes	yes	yes
15-abr.-15	11.02	z3ha	yes	yes	yes
15-abr.-15	11.03	z3ha	no	no	no
15-abr.-15	11.06	z3ha	yes	yes	yes
15-abr.-15	11.08	z3ha	yes	yes	yes
15-abr.-15	11.1	z3ha	yes	yes	yes
15-abr.-15	11.11	z3ha	yes	yes	yes
16-abr.-15	11.04	z3ha	yes	no	no
16-abr.-15	11.06	z3ha	yes	yes	yes
16-abr.-15	11.08	z3ha	yes	yes	yes
16-abr.-15	11.11	z3ha	yes	yes	yes
16-abr.-15	11.12	z3ha	yes	yes	yes
16-abr.-15	11.13	z3ha	no	no	no
17-abr.-15	10.53	z3ha	no	no	no
17-abr.-15	10.55	z3ha	yes	yes	yes
17-abr.-15	10.57	z3ha	yes	yes	yes
17-abr.-15	10.59	z3ha	yes	yes	yes
17-abr.-15	11	z3ha	yes	yes	yes
17-abr.-15	11.02	z3ha	no	no	no
2-may.-15	12.09	z3ha	yes	yes	yes
2-may.-15	12.11	z3ha	no	no	no
2-may.-15	12.13	z3ha	yes	yes	yes
2-may.-15	12.15	z3ha	no	no	no
3-may.-15	11.31	z3ha	yes	yes	yes
3-may.-15	11.33	z3ha	no	no	no
3-may.-15	11.35	z3ha	yes	yes	yes
3-may.-15	11.37	z3ha	no	no	no
4-may.-15	12.06	z3ha	yes	yes	yes
4-may.-15	12.07	z3ha	yes	yes	yes
4-may.-15	12.07	z3ha	no	no	no
4-may.-15	12.09	z3ha	yes	yes	yes
4-may.-15	12.11	z3ha	yes	yes	yes
4-may.-15	12.13	z3ha	yes	yes	yes
11-abr.-15	11.47	z3oh	yes	yes	yes
11-abr.-15	11.49	z3oh	yes	yes	yes
11-abr.-15	11.5	z3oh	yes	yes	yes
11-abr.-15	11.51	z3oh	yes	yes	yes
11-abr.-15	11.53	z3oh	yes	yes	yes
11-abr.-15	12.04	z3oh	yes	yes	yes
12-abr.-15	11.21	z3oh	yes	no	no
12-abr.-15	11.24	z3oh	yes	yes	yes
12-abr.-15	11.25	z3oh	yes	yes	yes
12-abr.-15	11.26	z3oh	yes	yes	yes
12-abr.-15	11.28	z3oh	yes	yes	yes
12-abr.-15	11.3	z3oh	yes	yes	yes
13-abr.-15	11.1	z3oh	yes	yes	yes
13-abr.-15	11.12	z3oh	yes	yes	yes

13-abr.-15	11.13	z3oh	no	no	no
13-abr.-15	11.15	z3oh	yes	yes	yes
13-abr.-15	11.17	z3oh	no	no	no
13-abr.-15	11.19	z3oh	yes	yes	yes
14-abr.-15	10.32	z3oh	yes	yes	yes
14-abr.-15	10.34	z3oh	yes	yes	yes
14-abr.-15	10.36	z3oh	no	no	no
14-abr.-15	10.38	z3oh	yes	yes	yes
14-abr.-15	10.4	z3oh	yes	yes	yes
14-abr.-15	10.42	z3oh	no	no	no
15-abr.-15	11.25	z3oh	yes	yes	yes
15-abr.-15	11.27	z3oh	yes	yes	yes
15-abr.-15	11.28	z3oh	yes	yes	yes
15-abr.-15	11.29	z3oh	yes	yes	yes
15-abr.-15	11.3	z3oh	no	no	no
15-abr.-15	11.33	z3oh	no	no	no
16-abr.-15	10.53	z3oh	no	no	no
16-abr.-15	10.55	z3oh	yes	yes	yes
16-abr.-15	10.56	z3oh	yes	yes	yes
16-abr.-15	10.58	z3oh	yes	yes	yes
16-abr.-15	10.59	z3oh	yes	yes	yes
16-abr.-15	11	z3oh	yes	yes	yes
17-abr.-15	12.2	z3oh	yes	yes	yes
17-abr.-15	12.22	z3oh	no	no	no
17-abr.-15	12.25	z3oh	yes	yes	yes
17-abr.-15	12.26	z3oh	yes	yes	yes
17-abr.-15	12.27	z3oh	yes	yes	yes
17-abr.-15	12.29	z3oh	no	no	no
2-may.-15	11.32	z3oh	yes	yes	yes
2-may.-15	11.33	z3oh	no	no	no
2-may.-15	11.35	z3oh	yes	yes	yes
2-may.-15	11.37	z3oh	no	no	no
3-may.-15	11.16	z3oh	yes	yes	yes
3-may.-15	11.18	z3oh	yes	yes	yes
3-may.-15	11.19	z3oh	yes	yes	yes
3-may.-15	11.2	z3oh	no	no	no
4-may.-15	11.24	z3oh	yes	yes	yes
4-may.-15	11.25	z3oh	no	no	no
4-may.-15	11.27	z3oh	yes	yes	yes
4-may.-15	11.3	z3oh	yes	yes	yes
4-may.-15	11.31	z3oh	no	no	no
4-may.-15	11.33	z3oh	yes	yes	yes

H (suboptimal)	
H (optimal)	
ant blend	
nt blend	
t blend	
hexenyl acetate	
hexenol	
-hexenal	
enzaldehyde	
enzonitrile	

Role of plant volatiles and hetero-specific pheromone components in the wind tunnel response of male *Grapholita molesta* (Lepidoptera: Tortricidae) to modified sex pheromone blends

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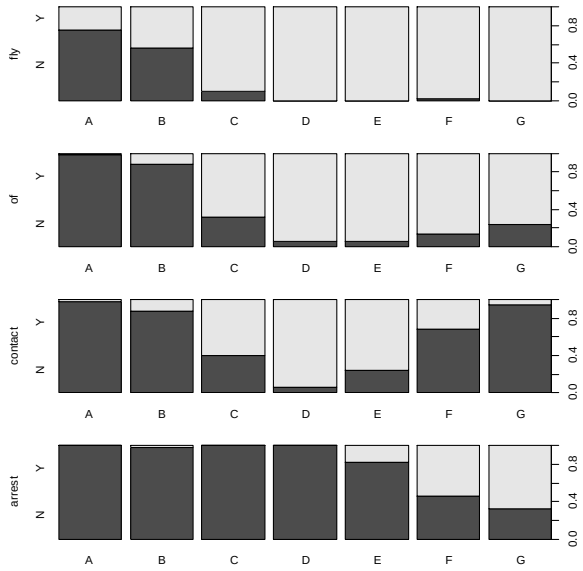
Supplementary material:

R codes for statistical analyses and selected R output

Index

1. Effect of pheromone concentration

```
#Install libraries
library(reshape) #for "rename"
library(lme4)  #for "glmer"
library(multcomp) #for "glht"
library(psych) #for "describeBy"
library(nlme) #for lme model
library(predictmeans) # for predict means
library(lsmeans) #for lsmeans

setwd("C:/R.tests")#Indicate to R where the data are stored (in our case they are in the C drive in a folder called "R.tests")
offblend <-read.table("overdose.curve.txt",header=T) #The data is in a text file called "overdose.curve". We import it in R and name it "offblend".
attach(offblend)
summary(offblend)
levels(offblend$trt)#check treatment levels
[1] "A" "B" "C" "D" "E" "F" "G"
#Treatment names correspond to: A=0.1ng, B=1ng, C=10ng, D=100ng, E=1000ng, F=2000ng, G=3000ng

#Descriptive analysis: box.plots
# plot the percentages
par(mfrow=c(4,1),cex=0.65)
par(mar=c(2,4.5,2,2.5))
plot(fly~trt,data=offblend)
plot(of~trt,data=offblend)
plot(contact~trt,data=offblend)
plot(arrest~trt,data=offblend)
```



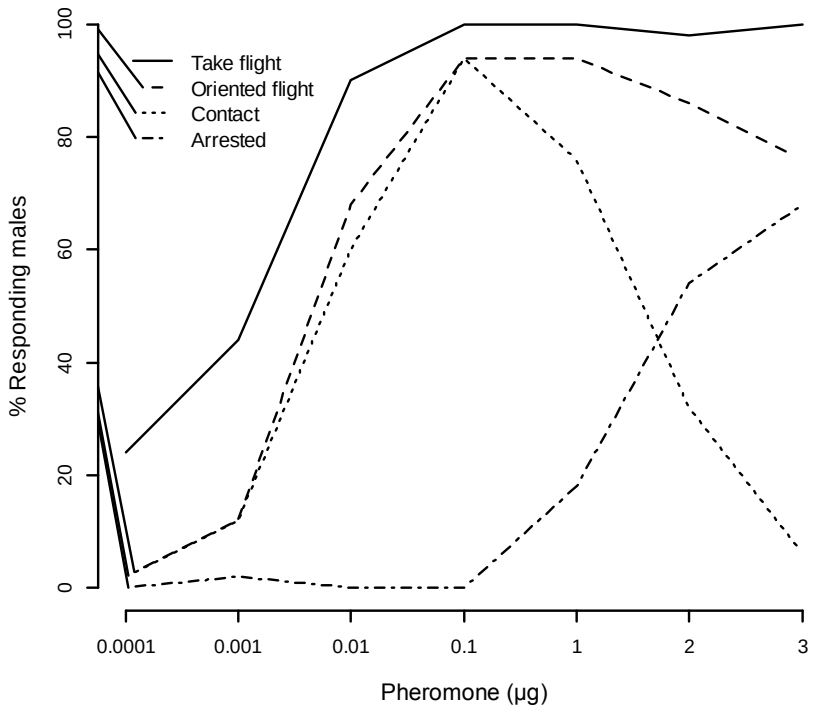

```
#calculate the percentages of responding males
#number of individuals flying
tab1=table(offblend$trt,offblend$fly)
tab2=as.data.frame(tab1)
```

```
tab3=rename(tab2,c(Var1="trt",Var2="fly"))
posit=subset(tab3, fly=="Y")
negat=subset(tab3,fly=="N")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsfly=posit
obsfly
#of
tab1=table(offblend$trt,offblend$of)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="of"))
posit=subset(tab3, of=="Y")
negat=subset(tab3,of=="N")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsof=posit
obsof
#contact
tab1=table(offblend$trt,offblend$contact)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="contact"))
posit=subset(tab3, contact=="Y")
negat=subset(tab3,contact=="N")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obscon=posit
obscon

#arrest
tab1=table(offblend$trt,offblend$arrest)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="arrest"))
posit=subset(tab3, arrest=="Y")
negat=subset(tab3,arrest=="N")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsarrest=posit
obsarrest

#Table observed
observed=cbind(levels(obsfly$trt),obsfly[,4]*100,obsof[,4]*100,obscon[,4]*100, obsarrest[,4]*100)
colnames(observed)=c("trt","o.fly","o.of","o.con","o.arr")
observed=as.data.frame(observed)
observed
```

trt	o.fly.prop	o.fly	o.of	o.con	o.arr
A	0.24	24	2	2	0
B	0.44	44	12	12	2
C	0.9	90	68	60	0
D	1	100	94	94	0
E	1	100	94	76	18
F	0.98	98	86	32	54
G	1	100	76	6	68

```
#Plot of results
```

```
fly = 100*(obsfly$percY)
of = 100*(obsof$percY)
contact = 100*(obscon$percY)
arr =  100*(obsarrest$percY)

plot(fly, type="l",lty=1, lwd=2 , ylim=c(0,100), axes=FALSE,ann=FALSE)
points(of, type="l",lty=2, lwd=2)
points(contact, type="l",lty=3,lwd=2)
points(arr, type="l", lty=4,lwd=2)
axis(1, at=1:7, lwd=2,lab=c("0.0001","0.001","0.01","0.1","1",2,3))
axis(2,at=seq(0,100,by=20), lwd=2)
mtext(side=1, "Pheromone (µg)", line=3,cex=1.2)
mtext(side=2, "% Responding males", line=3,cex=1.2)
legend(0.9,98,c("Take flight","Oriented flight","Contact","Arrested"),lty=c(1,2,3,4),lwd=c(2,2,2,2),bty="n",
cex=1.1)
```

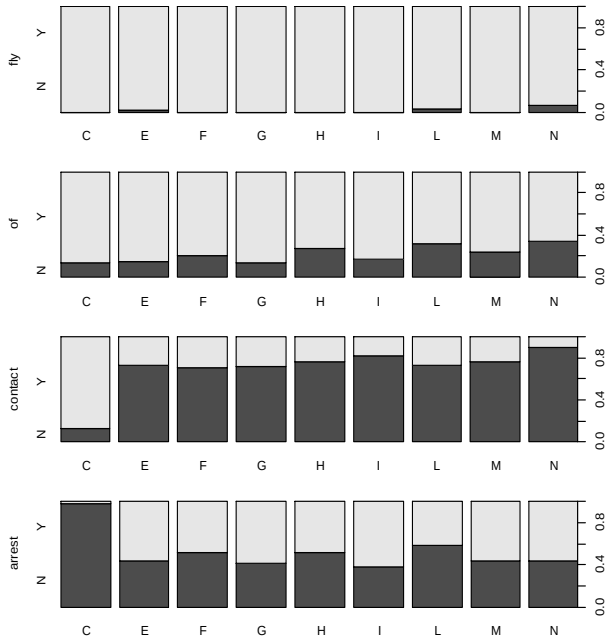


2. Effect of plant volatiles on suboptimal overdosed pheromone

```
#Install libraries
library(reshape) #for "rename"
library(lme4)  #for "glmer"
library(multcomp) #for "glht"
library(psych) #for "describeBy"
library(nlme) #for lme model
library(predictmeans) # for predict means
library(lsmeans) #for lsmeans

setwd("C:/R.tests/overdose")
offblend <-read.table("overdose.plant.txt",header=T)
attach(offblend)
summary(offblend)
levels(offblend$trt)#check treatment levels
[1] "C""E" "F" "G" "H" "I" "L" "M" "N"
#They correspond with:
```

trt	Pheromone (ng)	Plant (ng)	ratio
C	100	0	
E	2000	0	1:0
F	2000	0.2	1:0.0001
G	2000	2	1:0.001
H	2000	20	1:0.01
I	2000	200	1:0.1
L	2000	2000	1:1
M	2000	20000	1:10
N	2000	200000	1:100

```
# plot the percentages
par(mfrow=c(4,1),cex=0.65)
par(mar=c(2,4.5,2,2.5))
plot(fly~trt,data=offblend)
plot(of~trt,data=offblend)
plot(contact~trt,data=offblend)
plot(arrest~trt,data=offblend)
```




```
#Calculate the percentages of responding males
#number of individuals flying
tab1=table(offblend$trt,offblend$fly)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="fly"))
posit=subset(tab3, fly=="Y")
negat=subset(tab3,fly=="N")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsfly=posit
obsfly
#of
tab1=table(offblend$trt,offblend$of)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="of"))
posit=subset(tab3, of=="Y")
negat=subset(tab3,of=="N")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsof=posit
obsof
#contact
tab1=table(offblend$trt,offblend$contact)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="contact"))
posit=subset(tab3, contact=="Y")
negat=subset(tab3,contact=="N")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obscon=posit
obscon
#arrest
tab1=table(offblend$trt,offblend$arrest)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="arrest"))
```

```
posit=subset(tab3, arrest=="Y")
negat=subset(tab3,arrest=="N")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsarrest=posit
obsarrest
```

#Table observed

```
observed=cbind(obsfly[,4]*100,obsof[,4]*100,obscon[,4]*100, obsarrest[,4]*100)
colnames(observed)=c("o.fly","o.of","o.con","o.arr")
observed=as.data.frame(observed)
observed$trt=levels(obsfly$trt)
observed
```

trt	o.fly	o.of	o.con	o.arr
C	100	87	87	1.7
E	98	85	27	56.7
F	100	80	30	48.3
G	100	87	28	58.3
H	100	73	23	48.3
I	100	83	18	61.7
L	97	68	27	41.7
M	100	77	23	55.9
N	93	65	10	55

#Statistical comparison

We would like to compare the optimal pheromone concentration (100 ng) with all the other treatments and the overdosed concentration (2000 ng) with all the other treatments. The variable is binomial ("yes" or "no") so we need a binomial distribution. For this we use a general linear model and do it for each behavioral category individually. We use "trt" as the independent variable

#For pairwise comparisons we will perform the following contrast:

```
contrast=c ("C-E=0","C-F=0","C-G=0","C-H=0","C-I=0","C-L=0","C-M=0","C-N=0","E-F=0","E-G=0","E-H=0","E-I=0","E-L=0","E-M=0","E-N=0")
```

#FLY

```
model.offblend.fly=glm(fly~trt, data=offblend,family=binomial(logit))
anova(model.offblend.fly, test="Chisq")
```

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)
NULL			539	74.748	
trt	8	17.647	531	57.101	0.02403 *

#multiple comparison

```
mcp.fly=glht(model.offblend.fly,linfct=mcp(trt=contrast))
summary(mcp.fly)
```

	Estimate	Std. Error	z value	Pr(>|z|)
C - E == 0	1.749e+01	3.774e+03	0.005	1.000
C - F == 0	-1.489e-10	5.337e+03	0.000	1.000
C - G == 0	-3.126e-10	5.337e+03	0.000	1.000

```
C - H == 0 -6.599e-09  5.337e+03   0.000    1.000
C - I == 0  4.225e-11  5.337e+03   0.000    1.000
C - L == 0  1.820e+01  3.774e+03   0.005    1.000
C - M == 0 -1.607e-10  5.337e+03   0.000    1.000
C - N == 0  1.893e+01  3.774e+03   0.005    1.000
E - F == 0 -1.749e+01  3.774e+03  -0.005    1.000
E - G == 0 -1.749e+01  3.774e+03  -0.005    1.000
E - H == 0 -1.749e+01  3.774e+03  -0.005    1.000
E - I == 0 -1.749e+01  3.774e+03  -0.005    1.000
E - L == 0  7.102e-01  1.239e+00   0.573    0.999
E - M == 0 -1.749e+01  3.774e+03  -0.005    1.000
E - N == 0  1.438e+00  1.133e+00   1.269    0.856

#OF
model.offblend.of=glm(of~trt, data=offblend,family=binomial(logit))
anova(model.offblend.of, test="Chisq")
  Df Deviance Resid. Df Resid. Dev Pr(>Chi)
NULL               539     564.47
trt   8   17.991      531     546.48   0.0213 *

mcp.of=glht(model.offblend.of,linfct=mcp(trt=contrast))
summary(mcp.of)
          Estimate Std. Error z value Pr(>|z|)
C - E == 0  1.372e-01  5.244e-01   0.262   1.0000
C - F == 0  4.855e-01  4.984e-01   0.974   0.9467
C - G == 0  6.582e-16  5.371e-01   0.000   1.0000
C - H == 0  8.602e-01  4.790e-01   1.796   0.4646
C - I == 0  2.624e-01  5.140e-01   0.510   0.9990
C - L == 0  1.103e+00  4.704e-01   2.344   0.1692
C - M == 0  6.822e-01  4.872e-01   1.400   0.7399
C - N == 0  1.253e+00  4.664e-01   2.686   0.0736 .
E - F == 0  3.483e-01  4.846e-01   0.719   0.9907
E - G == 0 -1.372e-01  5.244e-01  -0.262   1.0000
E - H == 0  7.230e-01  4.647e-01   1.556   0.6333
E - I == 0  1.252e-01  5.007e-01   0.250   1.0000
E - L == 0  9.655e-01  4.558e-01   2.118   0.2694
E - M == 0  5.450e-01  4.732e-01   1.152   0.8807
E - N == 0  1.116e+00  4.516e-01   2.470   0.1269

#CONTACT
model.offblend.contact=glm(contact~trt, data=offblend,family=binomial(logit))
anova(model.offblend.contact, test="Chisq")
    Df Deviance Resid. Df Resid. Dev  Pr(>Chi)
NULL               539     663.09
trt   8   105.39      531     557.70 < 2.2e-16 ***

mcp.contact=glht(model.offblend.contact,linfct=mcp(trt=contrast))
summary(mcp.contact)
           Estimate Std. Error z value Pr(>|z|)
C - E == 0  2.883e+00  4.790e-01   6.019   <0.001 ***
C - F == 0  2.719e+00  4.729e-01   5.750   <0.001 ***
C - G == 0  2.800e+00  4.757e-01   5.885   <0.001 ***
C - H == 0  3.061e+00  4.872e-01   6.283   <0.001 ***
```

```
C - I == 0  3.366e+00  5.055e-01   6.658   <0.001 ***
C - L == 0  2.883e+00  4.790e-01   6.019   <0.001 ***
C - M == 0  3.061e+00  4.872e-01   6.283   <0.001 ***
C - N == 0  4.069e+00  5.739e-01   7.090   <0.001 ***
E - F == 0 -1.643e-01  4.057e-01  -0.405    1.000
E - G == 0 -8.361e-02  4.090e-01  -0.204    1.000
E - H == 0  1.780e-01  4.224e-01   0.421    1.000
E - I == 0  4.823e-01  4.433e-01   1.088    0.921
E - L == 0  6.753e-16  4.129e-01   0.000    1.000
E - M == 0  1.780e-01  4.224e-01   0.421    1.000
E - N == 0  1.186e+00  5.200e-01   2.280    0.204
```

#ARREST

```
model.offblend.arrest=glm(arrest~trt, data=offblend,family=binomial(logit))
anova(model.offblend.arrest, test="Chisq")
```

```
    Df Deviance Resid. Df Resid. Dev  Pr(>Chi)
NULL                538     745.86
trt   8   80.935      530     664.92 3.169e-14 ***
```

```
mcp.arrest=glht(model.offblend.arrest,linfct=mcp(trt=contrast))
summary(mcp.arrest)
              Estimate Std. Error z value Pr(>|z|)
C - E == 0 -4.34580    1.04135  -4.173  < 0.001 ***
C - F == 0 -4.01085    1.04080  -3.854  0.00112 **
C - G == 0 -4.41401    1.04168  -4.237  < 0.001 ***
C - H == 0 -4.01085    1.04080  -3.854  0.00115 **
C - I == 0 -4.55296    1.04261  -4.367  < 0.001 ***
C - L == 0 -3.74107    1.04168  -3.591  0.00305 **
C - M == 0 -4.31595    1.04177  -4.143  < 0.001 ***
C - N == 0 -4.27821    1.04109  -4.109  < 0.001 ***
E - F == 0  0.33496    0.36690   0.913  0.94925
E - G == 0 -0.06821    0.36938  -0.185  1.00000
E - H == 0  0.33496    0.36690   0.913  0.94926
E - I == 0 -0.20716    0.37199  -0.557  0.99754
E - L == 0  0.60474    0.36938   1.637  0.51213
E - M == 0  0.02985    0.36965   0.081  1.00000
E - N == 0  0.06759    0.36771   0.184  1.00000
```

#OBSERVED AND PREDICTED

```
observed=as.data.frame(observed)
obs.fly=observed[,1]
obs.of=observed[,2]
obs.contact=observed[,3]
obs.arrest=observed[,4]

predict.fly=predictmeans(model.offblend.fly,"trt",adj="tukey", plot=F)[[6]]
predict.fly=predict.fly[[2]]*100

predict.of=predictmeans(model.offblend.of,"trt",adj="tukey", plot=F)[[6]]
predict.of=predict.of[[2]]*100

predict.con=predictmeans(model.offblend.contact,"trt",adj="tukey", plot=F)[[6]]
```

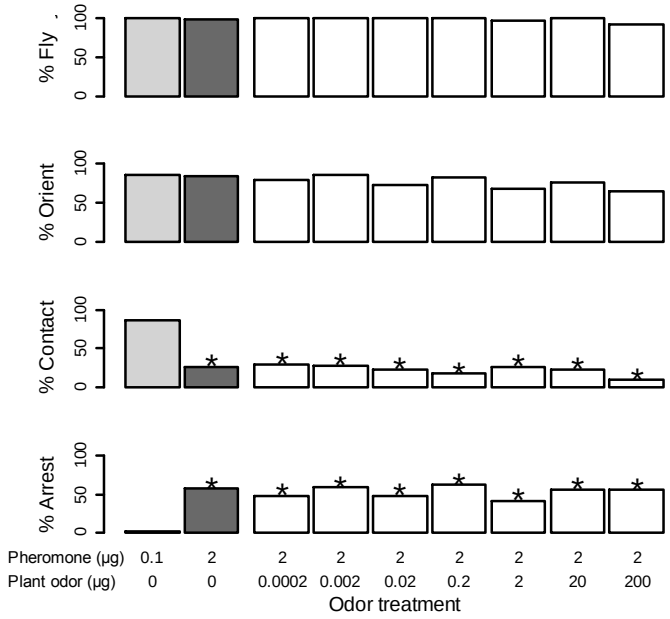
```
predict.con=predict.con[[2]]*100

predict.arr=predictmeans(model.offblend.arrest,"trt",adj="tukey", plot=F)[[6]]
predict.arr=predict.arr[[2]]*100

table=cbind(obs.fly,predict.fly,obs.of,predict.of,obs.contact,predict.con, obs.arrest,predict.arr)
table=as.data.frame(table)
colnames(table)=c("FLY.O", "FLY.P", "OF.O","OF.P", "CON.O","CON.P","ARR.O","ARR.P")

rownames(table)=levels(offblend$trt)
table
```

	FLY.O	FLY.P	OF.O	OF.P	CON.O	CON.P	ARR.O	ARR.P
C	100	100	87	87	87	87	1.7	1.7
E	98	98	85	85	27	27	56.7	56.7
F	100	100	80	80	30	30	48.3	48.3
G	100	100	87	87	28	28	58.3	58.3
H	100	100	73	73	23	23	48.3	48.3
I	100	100	83	83	18	18	61.7	61.7
L	97	97	68	68	27	27	41.7	41.7
M	100	100	77	77	23	23	55.9	55.9
N	93	93	65	65	10	10	55	55

#Plot the predicted values and the statistical results

```
par(mfrow=c(4,1), mar=c(4,3,0.2,0), xpd=T, oma=rep(5,4))

#FLY PLOT
par(lwd=2)
fly.plot=barplot(table[[2]],beside=T, axes=F, col=c("lightgrey","dimgrey",rep("white",8)), ylim=c(0,100),
axisnames=F, cex.lab=1.5, space=c(0.3, 0.1,0.3,0.1,0.1,0.1,0.1,0.1,0.1))
axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
mtext(side=2, "% Fly", line=3,cex=1)

#OF PLOT
of.plot=barplot(table[[4]],beside=T, axes=F, col=c("lightgrey","dimgrey",rep("white",8)), ylim=c(0,100),
axisnames=F, cex.lab=1.5, space=c(0.3, 0.1,0.3,0.1,0.1,0.1,0.1,0.1,0.1))
axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
mtext(side=2, "% Orient", line=3,cex=1)

#CONTACT PLOT
contact.plot=barplot(table[[6]],beside=T, col=c("lightgrey","dimgrey",rep("white",8)), axes=F, ylim=c(0,100),
axisnames=F, cex.lab=1.5, space=c(0.3, 0.1,0.3,0.1,0.1,0.1,0.1,0.1,0.1))
axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
text(fly.plot, table[[6]]+13, labels=c("","*","*","*","*","*","*","*"),col=c("black"),cex=2.5)
mtext(side=2, "% Contact", line=3,cex=1)

# ARREST PLOT
arrest.plot=barplot(table[[8]],beside=T, col=c("lightgrey","dimgrey",rep("white",8)), axes=F,
ylim=c(0,100),axisnames=F, cex.lab=1.5,space=c(0.3, 0.1,0.3,0.1,0.1,0.1,0.1,0.1,0.1))
```

```
axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
text(fly.plot, table[[8]]+13, labels=c("","*","*","*","*","*","*","*","*"),col=c("black"),cex=2.5)
mtext(side=2, "% Arrest", line=3,cex=1)

#X axis
axis(1, at=-0.8, line=0, labels="Pheromone (µg)", cex.axis=1.3, col=0, tck=0)
axis(1, at=-0.9, line=1.5, labels="Plant odor (µg)", cex.axis=1.3, col=0, tck=0)

axis(1, at=contact.plot, line=0,labels=c("0.1","2","2","2","2","2","2","2","2"), cex.axis=1.3, col=0, tck=0)
axis(1, at=contact.plot, line=1.5,labels=c("0","0","0.0002","0.002","0.02","0.2","2","20","200"), cex.axis=1.3,
col=0, tck=0)
mtext(side=1, "Odor treatment", line=4.5,cex=1)
```



3. Effect of plant volatiles on suboptimal pheromone blend ratios

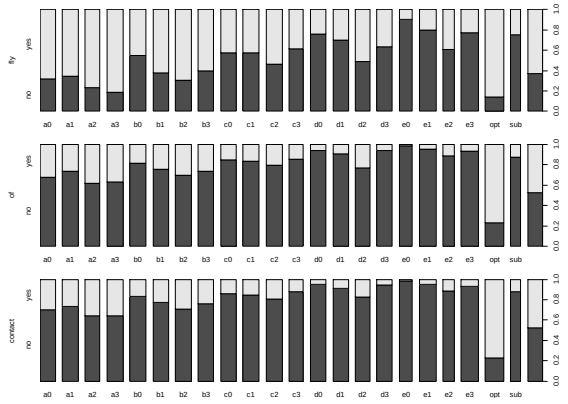
```
library(reshape) #for "rename"
library(lme4)  #for "glmer"
library(multcomp) #for "glht"
library(psych) #for "describeBy"
library(nlme) #for lme model
library(predictmeans) # for predict means
library(lsmeans) #for lsmeans

setwd("C:/R.tests")
offblend <- read.table("offblend.plant.txt", header=T)
attach(offblend)
summary(offblend)
as.factor=offblend$trt
offblend=offblend[offblend$trt !="hex",] #Remove the hexane treatment (no response to it)
offblend=offblend[offblend$trt !="plant",] #Remove the plant treatment (no response to it)
offblend$trt=as.factor(as.character(offblend$trt))
```

#Treatment name

trt	%E8-12:Ac	pher:plant ratio
sub	suboptimal pheromone (1ng)	
subpl	suboptimal+plant	
opt	optimal pheromone (100ng)	
plant	plant blend alone	
a0	0%	1:0
a1	0%	1:10
a2	0%	1:100
a3	0%	1:1000
b0	50%	1:0
b1	50%	1:10
b2	50%	1:100
b3	50%	1:1000
c0	100%	1:0
c1	100%	1:10
c2	100%	1:100
c3	100%	1:1000
d0	150%	1:0
d1	150%	1:10
d2	150%	1:100
d3	150%	1:1000
e0	200%	1:0
e1	200%	1:10
e2	200%	1:100
e3	200%	1:1000

#Boxplot

```
par(mfrow=c(3,1),cex=0.65)
par(mar=c(2,4.5,2,2.5))
plot(fly~trt,data=offblend)
plot(of~trt,data=offblend)
plot(contact~trt,data=offblend)
```



#Calculate the percentages of responding males

#fly

```
tab1=table(offblend$trt,offblend$fly)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="fly"))
posit=subset(tab3, fly=="yes")
negat=subset(tab3,fly=="no")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsfly=posit
obsfly
```

#of

```
tab1=table(offblend$trt,offblend$of)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="of"))
posit=subset(tab3, of=="yes")
negat=subset(tab3,of=="no")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsof=posit
obsof
```

#contact

```
tab1=table(offblend$trt,offblend$contact)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="contact"))
posit=subset(tab3, contact=="yes")
negat=subset(tab3,contact=="no")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obscon=posit
obscon
```

#Table observed

```
observed=cbind(obsfly[,4]*100,obsof[,4]*100,obscon[,4]*100)
```

```
colnames(observed)=c("o.fly","o.of","o.con")
observed=as.data.frame(observed)
observed$trt=levels(obsfly$trt)
options(digits=2)
observed
```

trt	o.fly	o.of	o.con
a0	68	32	30
a1	65.7	26.3	26.3
a2	76.8	37.9	35.8
a3	81.7	36.5	35.6
b0	45.2	18.3	16.3
b1	62.6	24.2	22.2
b2	69.7	30.3	29.3
b3	60	26	24
c0	42.4	15.2	14.1
c1	42.7	16.5	15.5
c2	53.8	20.2	19.2
c3	38.9	14.4	12.2
d0	24	6	5
d1	30	9	9
d2	51.1	22.8	17.4
d3	36.7	6.1	5.1
e0	9.4	1.2	1.2
e1	20.4	4.6	4.6
e2	39.4	11.3	11.3
e3	22.9	6.4	6.4
opt	86.3	76.9	76.9
sub	24.6	12.3	12.3
subpl	62.9	47.4	47.4

#Statistical comparison

#For pairwise comparisons we will perform the following contrasts: Within each pheromone blend composition (a=0%E, b=50%E, c=100%E and e=200%E) we compared the response without plant (e.g., a1 in the case of 0%E) with the response of each plant concentration (a2, a3, and a4 for 0%E). We also compared the response of a suboptimal concentration-optimal E-ratio (1ng, 6%E) pheromone blend with an optimal dose (100ng) blend and with the suboptimal concentration plus plant, as control treatments, in order to show that the plant blend was "functional".

```
contrast=c("a0-opt=0","a0-a1=0","a0-a2=0","a0-a3=0","b0-opt=0","b0-b1=0","b0-b2=0","b0-b3=0","c0-opt=0","c0-c1=0","c0-c2=0","c0-c3=0","d0-opt=0","d0-d1=0","d0-d2=0","d0-d3=0","e0-opt=0","e0-e1=0","e0-e2=0","e0-e3=0","opt-sub=0","sub-subpl=0","opt-subpl=0")
```

#FLY

```
model.offblend.fly=glm(fly~trt, data=offblend,family=binomial(logit))
anova(model.offblend.fly, test="Chisq")
```

```
    Df Deviance Resid. Df Resid. Dev Pr(>Chi)
NULL              2237      3102
trt  22     421     2215      2681   <2e-16 ***
```

```
mcp.fly=glht(model.offblend.fly,linfct=mcp(trt=contrast))
summary(mcp.fly)
```

```
               Estimate Std. Error z value Pr(>|z|)
a0 - opt == 0     -1.089      0.344   -3.16   0.0311 *
a0 - a1 == 0       0.106      0.301    0.35   1.0000
a0 - a2 == 0      -0.446      0.324   -1.37   0.9474
a0 - a3 == 0      -0.744      0.332   -2.24   0.3614
b0 - opt == 0     -2.035      0.334   -6.10   <0.001 ***
b0 - b1 == 0      -0.709      0.286   -2.48   0.2172
b0 - b2 == 0      -1.026      0.294   -3.48   0.0105 *
b0 - b3 == 0      -0.598      0.284   -2.11   0.4602
c0 - opt == 0     -2.148      0.337   -6.37   <0.001 ***
c0 - c1 == 0      -0.012      0.285   -0.04   1.0000
c0 - c2 == 0      -0.460      0.283   -1.62   0.8327
c0 - c3 == 0       0.147      0.297    0.49   1.0000
d0 - opt == 0     -2.995      0.357   -8.40   <0.001 ***
d0 - d1 == 0      -0.305      0.320   -0.95   0.9986
d0 - d2 == 0      -1.196      0.314   -3.81   0.0031 **
d0 - d3 == 0      -0.609      0.314   -1.94   0.5984
e0 - opt == 0     -4.107      0.459   -8.95   <0.001 ***
e0 - e1 == 0      -0.901      0.442   -2.04   0.5154
e0 - e2 == 0      -1.835      0.444   -4.14   <0.001 ***
e0 - e3 == 0      -1.052      0.436   -2.42   0.2512
opt - sub == 0     2.962      0.394    7.52   <0.001 ***
sub - subpl == 0  -1.647      0.356   -4.62   <0.001 ***
opt - subpl == 0   1.315      0.341    3.85   0.0026 **
```

```
#OF
model.offblend.of=glm(of~trt, data=offblend,family=binomial(logit))
anova(model.offblend.of, test="Chisq")
```

```
    Df Deviance Resid. Df Resid. Dev Pr(>Chi)
NULL              2237      2388
trt  22     373     2215      2014   <2e-16 ***
```

```
mcp.of=glht(model.offblend.of,linfct=mcp(trt=contrast))
summary(mcp.of)
```

```
               Estimate Std. Error z value Pr(>|z|)
a0 - opt == 0    -1.9577     0.3068   -6.38   <0.001 ***
a0 - a1 == 0      0.2786     0.3132    0.89    0.999
a0 - a2 == 0     -0.2598     0.3011   -0.86    0.999
a0 - a3 == 0     -0.2017     0.2957   -0.68    1.000
b0 - opt == 0    -2.7022     0.3355   -8.05   <0.001 ***
b0 - b1 == 0     -0.3588     0.3455   -1.04    0.995
b0 - b2 == 0     -0.6653     0.3350   -1.99    0.543
b0 - b3 == 0     -0.4522     0.3411   -1.33    0.955
c0 - opt == 0    -2.9267     0.3560   -8.22   <0.001 ***
c0 - c1 == 0     -0.1016     0.3860   -0.26    1.000
```

```
c0 - c2 == 0      -0.3484     0.3718   -0.94    0.998
c0 - c3 == 0       0.0561     0.4105    0.14    1.000
d0 - opt == 0     -3.9555     0.4748   -8.33   <0.001 ***
d0 - d1 == 0      -0.4379     0.5472   -0.80    1.000
d0 - d2 == 0      -1.5334     0.4889   -3.14    0.032 *
d0 - d3 == 0      -0.0215     0.5957   -0.04    1.000
e0 - opt == 0     -5.6348     1.0282   -5.48   <0.001 ***
e0 - e1 == 0      -1.4055     1.1040   -1.27    0.967
e0 - e2 == 0      -2.3671     1.0724   -2.21    0.373
e0 - e3 == 0      -1.7518     1.0779   -1.63    0.818
opt - sub == 0     3.1676     0.4367    7.25   <0.001 ***
sub - subpl == 0  -1.8604     0.4288   -4.34   <0.001 ***
opt - subpl == 0   1.3072     0.2992    4.37   <0.001 ***
```

#CONTACT

```
model.offblend.contact=glm(contact~trt, data=offblend,family=binomial(logit))
anova(model.offblend.of, test="Chisq")
    Df Deviance Resid. Df Resid. Dev Pr(>Chi)
NULL                2237      2388
trt  22     373     2215      2014   <2e-16 ***

mcp.contact=glht(model.offblend.contact,linfct=mcp(trt=contrast))
summary(mcp.contact)

              Estimate Std. Error z value Pr(>|z|)
a0 - opt == 0     -2.0513     0.3095   -6.63   <0.001 ***
a0 - a1 == 0       0.1851     0.3159    0.59     1.00
a0 - a2 == 0      -0.2628     0.3057   -0.86     1.00
a0 - a3 == 0      -0.2535     0.2993   -0.85     1.00
b0 - opt == 0     -2.8367     0.3442   -8.24   <0.001 ***
b0 - b1 == 0      -0.3799     0.3588   -1.06     0.99
b0 - b2 == 0      -0.7515     0.3451   -2.18     0.39
b0 - b3 == 0      -0.4800     0.3538   -1.36     0.94
c0 - opt == 0     -3.0076     0.3624   -8.30   <0.001 ***
c0 - c1 == 0      -0.1103     0.3965   -0.28     1.00
c0 - c2 == 0      -0.3685     0.3809   -0.97     1.00
c0 - c3 == 0       0.1680     0.4322    0.39     1.00
d0 - opt == 0     -4.1484     0.5086   -8.16   <0.001 ***
d0 - d1 == 0      -0.6308     0.5767   -1.09     0.99
d0 - d2 == 0      -1.3863     0.5350   -2.59     0.16
d0 - d3 == 0      -0.0213     0.6491   -0.03     1.00
e0 - opt == 0     -5.6348     1.0282   -5.48   <0.001 ***
e0 - e1 == 0      -1.4055     1.1040   -1.27     0.97
e0 - e2 == 0      -2.3671     1.0724   -2.21     0.37
e0 - e3 == 0      -1.7518     1.0779   -1.63     0.82
opt - sub == 0     3.1676     0.4367    7.25   <0.001 ***
sub - subpl == 0  -1.8604     0.4288   -4.34   <0.001 ***
opt - subpl == 0   1.3072     0.2992    4.37   <0.001 ***
```

#OBSERVED AND PREDICTED (per cent response)

```
observed=as.data.frame(observed)
obs.fly=observed[,1]
```

```
obs.of=observed[,2]
obs.contact=observed[,3]

predict.fly=predictmeans(model.offblend.fly,"trt",adj="tukey", plot=F)[[6]]
predict.fly=predict.fly[[2]]*100

predict.of=predictmeans(model.offblend.of,"trt",adj="tukey", plot=F)[[6]]
predict.of=predict.of[[2]]*100

predict.con=predictmeans(model.offblend.contact,"trt",adj="tukey", plot=F)[[6]]
predict.con=predict.con[[2]]*100

table=cbind(obs.fly,predict.fly,obs.of,predict.of,obs.contact,predict.con)
table=as.data.frame(table)
colnames(table)=c("FLY.O", "FLY.P", "OF.O","OF.P", "CON.O","CON.P")

rownames(table)=levels(offblend$trt)
table

    FLY.O FLY.P  OF.O  OF.P CON.O CON.P
a0    68.00 68.00 32.00 32.00 30.00 30.00
a1    65.66 65.66 26.26 26.26 26.26 26.26
a2    76.84 76.84 37.89 37.89 35.79 35.79
a3    81.73 81.73 36.54 36.54 35.58 35.58
b0    45.19 45.19 18.27 18.27 16.35 16.35
b1    62.63 62.63 24.24 24.24 22.22 22.22
b2    69.70 69.70 30.30 30.30 29.29 29.29
b3    60.00 60.00 26.00 26.00 24.00 24.00
c0    42.42 42.42 15.15 15.15 14.14 14.14
c1    42.72 42.72 16.50 16.50 15.53 15.53
c2    53.85 53.85 20.19 20.19 19.23 19.23
c3    38.89 38.89 14.44 14.44 12.22 12.22
d0    24.00 24.00  6.00  6.00  5.00  5.00
d1    30.00 30.00  9.00  9.00  9.00  9.00
d2    51.09 51.09 22.83 22.83 17.39 17.39
d3    36.73 36.73  6.12  6.12  5.10  5.10
e0     9.41  9.41  1.18  1.18  1.18  1.18
e1    20.37 20.37  4.63  4.63  4.63  4.63
e2    39.44 39.44 11.27 11.27 11.27 11.27
e3    22.94 22.94  6.42  6.42  6.42  6.42
opt   86.32 86.32 76.92 76.92 76.92 76.92
sub   24.62 24.62 12.31 12.31 12.31 12.31
subpl 62.89 62.89 47.42 47.42 47.42 47.42

#PLOTTING

table$trt=rownames(table)#create a variable "trt" using rownames
table=table[table$trt!="sub",]#remove trt "sub"
table=table[table$trt!="subpl", ]#remove trt "subpl"
table$trt=as.factor(as.character(table$trt))
table=table[c((1:4),21,(5:20)),]#reorder treatment levels

par(mfrow=c(3,1), mar=c(4,3,1,0), xpd=T, oma=rep(5,4))
```

#Fly

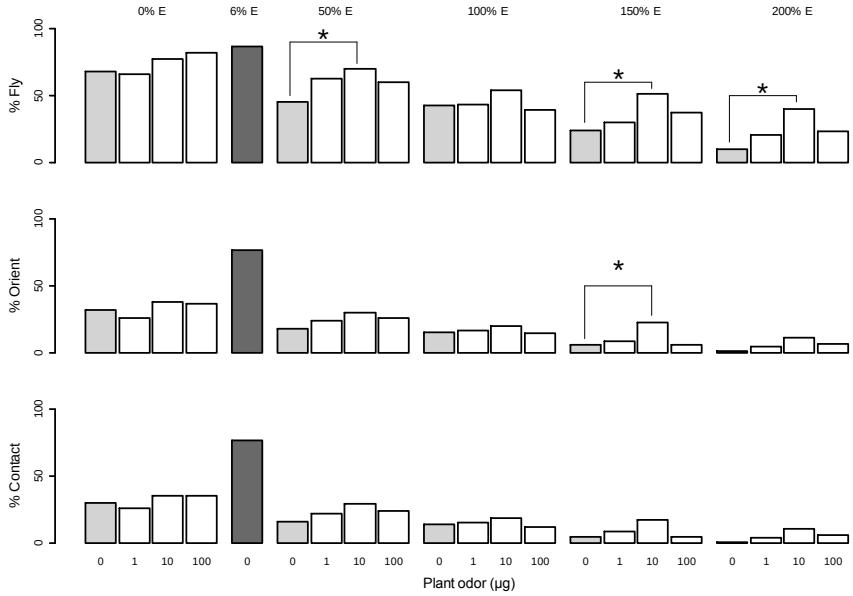
```
par(lwd=2)
fly.plot=barplot(table[[2]],beside=T, axes=F,
col=c("lightgrey","white","white","white","dimgray",rep(c("lightgrey","white","white","white"),4)),ylim=c(0,
100), axisnames=F, cex.lab=1.5, space=c(0.3, 0.1,0.1,0.1, 0.5, 0.5, 0.1,0.1,0.1, 0.5, 0.1,0.1,0.1, 0.5, 0.1,0.1,0.1,
0.5, 0.1,0.1,0.1))

axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
par(lwd=0.5)
mtext(side=2, "% Fly", line=3,cex=1)

axis(3, at=2.5, line=0, labels="0% E", cex.axis=1.3, col=0, tck=0)
axis(3, at=5.5, line=0, labels="6% E", cex.axis=1.3, col=0, tck=0)
axis(3, at=8.5, line=0, labels="50% E", cex.axis=1.3, col=0, tck=0)
axis(3, at=13.5, line=0, labels="100% E", cex.axis=1.3, col=0, tck=0)
axis(3, at=18.5, line=0, labels="150% E", cex.axis=1.3, col=0, tck=0)
axis(3, at=23.5, line=0, labels="200% E", cex.axis=1.3, col=0, tck=0)

segments(7, 90,9.2,90)
segments(7,90,7,50)
segments(9.2,90,9.2,74)
text(8.2, 93,labels="* ",cex=3)

segments(16.65, 60,18.85,60)
segments(16.65,60,16.65,30)
segments(18.85,60,18.85,55)
text(17.9, 63,labels="* ",cex=3)

segments(21.42, 50,23.6,50)
segments(21.42,50,21.42,15)
segments(23.6,50,23.6,45)
text(22.6, 53,labels="* ",cex=3)
```

#Orient

```
par(lwd=2)
of.plot=barplot(table[[4]],beside=T, axes=F,
col=c("lightgrey","white","white","white","dimgray",rep(c("lightgrey","white","white","white"),4)),ylim=c(0,
100), axisnames=F, cex.lab=1.5, space=c(0.3, 0.1,0.1,0.1, 0.5, 0.5, 0.1,0.1,0.1, 0.5, 0.1,0.1,0.1, 0.5, 0.1,0.1,0.1,
0.5, 0.1,0.1,0.1))

axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
par(lwd=0.5)
mtext(side=2, "% Orient", line=3,cex=1)

segments(16.65, 50,18.85,50)
segments(16.65,11,16.65,50)
segments(18.85,28,18.85,50)
text(17.9, 63,labels="* ",cex=3)
```

#Contact

```
par(lwd=2)
contact.plot=barplot(table[[6]],beside=T, axes=F,
col=c("lightgrey","white","white","white","dimgray",rep(c("lightgrey","white","white","white"),4)),ylim=c(0,
100), axisnames=F, cex.lab=1.5, space=c(0.3, 0.1,0.1,0.1, 0.5, 0.5, 0.1,0.1,0.1, 0.5, 0.1,0.1,0.1, 0.5, 0.1,0.1,0.1,
0.5, 0.1,0.1,0.1))

axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
par(lwd=0.5)
mtext(side=2, "% Contact", line=3,cex=1)

#X axis
axis(1, at=contact.plot, line=0,labels=c("0","1","10","100","0",
"0","1","10","100","0","1","10","100","0","1","10","100","0","1","10","100","0","1","10","100"), cex.axis=1.1, col=0, tck=0) #
mtext(side=1, line=3," Plant odor (µg)", cex.axis=1.5)
```



4. Effect of plant volatiles and alcohols on a pheromone blend lacking Z8-12:OH

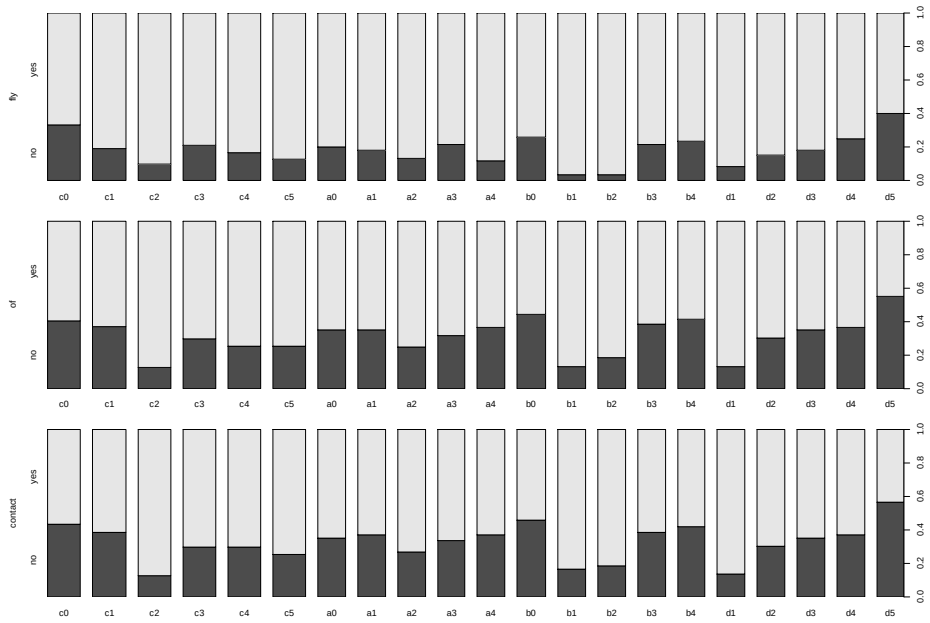
4.1 Effect of alcohols and plant blend

```
library(reshape) #for "rename"
library(lme4)  #for "glmer"
library(multcomp) #for "glht"
library(psych) #for "describeBy"
library(nlme) #for lme model
library(predictmeans) # for predict means
library(lsmeans) #for lsmeans

setwd("C:/R.tests")
alcohols1 <-read.table ("alcohols1.txt",header=T)
attach(alcohols1)
summary(alcohols1)
levels(alcohols1$trt)

alcohols1=alcohols1[alcohols1$trt !="hex",] #Remove the hexane treatment (no response to it)
alcohols1=alcohols1[alcohols1$trt !="plant",] #Remove the plant treatment (no response to it)
options(digits=3)
levels(alcohols1$trt) #check treatment levels

[1] "a0"   "a1"   "a2"   "a3"   "a4"   "b0"   "b1"   "b2"   "b3"
[10] "b4"   "c0"   "c1"   "c2"   "c3"   "c4"   "c5"   "d1"   "d2"
[19] "d3"   "d4"   "d5"   "hex"  "plant"
```

#Treatment names

Pheromone concentration	% 12:OH	% (E,E) 8,10-12:OH	% Z8-12:OH	Pher:Plant ratio
100ng	a0=3%	b0=3%	c0=0% (control)	plant=plant alone (control)
100ng	a1=10%	b1=10%	c1=3%	d1=1:0.1
100ng	a2=20%	b2=20%	c2=10% (control)	d2=1:1
100ng	a3=50%	b3=50%	c3=20%	d3=1:10
100ng	a4=100%	b4=100%	c4=50%	d4=1:100
100ng			c5=100%	d5=1:1000

```
alcohols1$trt
=ordered(alcohols1$trt,levels=c("c0","c1","c2","c3","c4","c5","a0","a1","a2","a3","a4","b0","b1","b2","b3","
b4","d1","d2","d3","d4","d5")) # Reorder treatments

levels(alcohols1$trt)
[1] "c0" "c1" "c2" "c3" "c4" "c5" "a0" "a1" "a2" "a3" "a4" "b0" "b1" "b2"
[15] "b3" "b4" "d1" "d2" "d3" "d4" "d5"


#boxplot
par(mfrow=c(3,1),cex=0.65)
par(mar=c(2,4.5,2,2.5))
plot(fly~trt,data=alcohols1)
plot(of~trt,data=alcohols1)
plot(contact~trt,data=alcohols1)
```



#Calculate the percentages of responding males
#Fly
```
tab1=table(alcohols1$trt,alcohols1$fly)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="fly"))
posit=subset(tab3, fly=="yes")
negat=subset(tab3,fly=="no")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsfly=posit
obsfly
```
#of
```
tab1=table(alcohols1$trt,alcohols1$of)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="of"))
posit=subset(tab3, of=="yes")
negat=subset(tab3,of=="no")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsof=posit
obsof
```
#contact
```
tab1=table(alcohols1$trt,alcohols1$contact)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="contact"))
posit=subset(tab3, contact=="yes")
negat=subset(tab3,contact=="no")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obscon=posit
obscon
```

#Table observed
```
observed=cbind(obsfly[,4]*100,obsof[,4]*100,obscon[,4]*100)
colnames(observed)=c("o.fly","o.of","o.con")
```

```
observed=as.data.frame(observed)
observed$trt=levels(obsfly$trt)
options(digits=2)
observed
```

trt	o.fly	o.of	o.con
c0	67	60	57
c1	81	63	62
c2	90	87	87
c3	79	70	70
c4	83	75	70
c5	87	75	75
a0	80	65	65
a1	82	65	63
a2	87	75	73
a3	78	68	67
a4	88	63	63
b0	74	56	54
b1	97	87	84
b2	97	82	82
b3	78	62	62
b4	77	58	58
d1	92	87	87
d2	85	70	70
d3	82	65	65
d4	75	63	63
d5	60	45	43

#Statistical analysis

#There were no responses to the negative controls "plant alone" and "hexane", so these treatments are removed from the analysis. A GLM model was performed on all the data with treatment as the only factor. A different GLM model was performed for each behavioral category. Then, planned pairwise comparisons were performed between treatments of interest. Every treatment was compared with the two control treatments: a) the "optimal" pheromone blend (10% Z8-12:OH) and the "suboptimal" pheromone blend (0% Z8-12:OH), with the following rationale: those treatments that are significantly different from 10% Z8-12:OH is because they are less attractive than the optimal (i.e., "best") blend (no treatment was better than the optimal blend), and b) those treatments that are different from 0% Z8-12:OH is because they are more attractive to males than the suboptimal (i.e., "worst") blend.

#For pairwise comparisons the following vector will be used:

```
contrast=c ("c0-a0=0","c0-a1=0","c0-a2=0","c0-a3=0","c0-a4=0","c0-b0=0","c0-b1=0","c0-b2=0","c0-b3=0","c0-b4=0","c0-c1=0","c0-c2=0","c0-c3=0","c0-c4=0","c0-c5=0","c0-d1=0","c0-d2=0","c0-d3=0","c0-d4=0","c0-d5=0","c2-a0=0","c2-a1=0","c2-a2=0","c2-a3=0","c2-a4=0","c2-b0=0","c2-b1=0","c2-b2=0","c2-b3=0","c2-b4=0","c2-c1=0","c2-c3=0","c2-c4=0","c2-c5=0","c2-d1=0","c2-d2=0","c2-d3=0","c2-d4=0","c2-d5=0")
```

#FLY

```
model.alcohols1.fly=glm(fly~trt, data=alcohols1,family=binomial(logit))
anova(model.alcohols1.fly, test="Chisq")
```

	Df	Deviance	Resid. Df	Resid. Dev	Pr(>Chi)

```
NULL              1330      1265
trt  20    70.6     1310      1195 0.00000015 ***
#multiple comparison (for each behavior)
mcp.fly=glht(model.alcohols1.fly,linfct=mcp(trt=contrast))
summary(mcp.fly)
                Estimate Std. Error z value Pr(>|z|)
c0 - a0 == 0   -0.693      0.408   -1.70    0.828
c0 - a1 == 0   -0.801      0.417   -1.92    0.672
c0 - a2 == 0   -1.179      0.455   -2.59    0.208
c0 - a3 == 0   -0.592      0.401   -1.48    0.935
c0 - a4 == 0   -1.331      0.474   -2.81    0.122
c0 - b0 == 0   -0.341      0.384   -0.89    1.000
c0 - b1 == 0   -2.691      0.761   -3.54    0.013 *
c0 - b2 == 0   -2.674      0.761   -3.51    0.014 *
c0 - b3 == 0   -0.592      0.401   -1.48    0.935
c0 - b4 == 0   -0.496      0.395   -1.26    0.984
c0 - c1 == 0   -0.745      0.388   -1.92    0.673
c0 - c2 == 0   -1.520      0.470   -3.23    0.035 *
c0 - c3 == 0   -0.624      0.383   -1.63    0.868
c0 - c4 == 0   -0.899      0.403   -2.23    0.432
c0 - c5 == 0   -1.237      0.436   -2.84    0.113
c0 - d1 == 0   -1.705      0.530   -3.22    0.038 *
c0 - d2 == 0   -1.041      0.440   -2.37    0.335
c0 - d3 == 0   -0.801      0.417   -1.92    0.672
c0 - d4 == 0   -0.405      0.389   -1.04    0.998
c0 - d5 == 0    0.288      0.363    0.79    1.000
c2 - a0 == 0    0.827      0.512    1.61    0.876
c2 - a1 == 0    0.719      0.519    1.38    0.962
c2 - a2 == 0    0.341      0.550    0.62    1.000
c2 - a3 == 0    0.928      0.507    1.83    0.739
c2 - a4 == 0    0.189      0.566    0.33    1.000
c2 - b0 == 0    1.179      0.493    2.39    0.321
c2 - b1 == 0   -1.171      0.822   -1.43    0.951
c2 - b2 == 0   -1.154      0.822   -1.40    0.957
c2 - b3 == 0    0.928      0.507    1.83    0.739
c2 - b4 == 0    1.023      0.502    2.04    0.578
c2 - c1 == 0    0.774      0.497    1.56    0.902
c2 - c3 == 0    0.896      0.493    1.82    0.749
c2 - c4 == 0    0.620      0.509    1.22    0.989
c2 - c5 == 0    0.283      0.535    0.53    1.000
c2 - d1 == 0   -0.185      0.614   -0.30    1.000
c2 - d2 == 0    0.478      0.538    0.89    1.000
c2 - d3 == 0    0.719      0.519    1.38    0.962
c2 - d4 == 0    1.114      0.497    2.24    0.424
c2 - d5 == 0    1.808      0.477    3.79    <0.01 **
#OF

model.alcohols1.of=glm(of~trt, data=alcohols1,family=binomial(logit))
anova(model.alcohols1.of, test="Chisq")
    Df Deviance Resid. Df Resid. Dev    Pr(>Chi)
NULL              1330      1653
trt  20    73.2     1310      1580 0.000000053 ***
mcp.of=glht(model.alcohols1.of,linfct=mcp(trt=contrast))
```

```
summary(mcp.of)
           Estimate Std. Error z value Pr(>|z|)
c0 - a0 == 0  -0.2251     0.3619   -0.62    1.000
c0 - a1 == 0  -0.2251     0.3619   -0.62    1.000
c0 - a2 == 0  -0.7047     0.3829   -1.84    0.696
c0 - a3 == 0  -0.3752     0.3671   -1.02    0.997
c0 - a4 == 0  -0.1526     0.3599   -0.42    1.000
c0 - b0 == 0   0.1634     0.3524    0.46    1.000
c0 - b1 == 0  -1.4969     0.4490   -3.33    0.024 *
c0 - b2 == 0  -1.1000     0.4112   -2.68    0.159
c0 - b3 == 0  -0.0815     0.3581   -0.23    1.000
c0 - b4 == 0   0.0574     0.3554    0.16    1.000
c0 - c1 == 0  -0.1389     0.3413   -0.41    1.000
c0 - c2 == 0  -1.5360     0.4301   -3.57    0.011 *
c0 - c3 == 0  -0.4736     0.3541   -1.34    0.961
c0 - c4 == 0  -0.6860     0.3635   -1.89    0.660
c0 - c5 == 0  -0.6860     0.3635   -1.89    0.660
c0 - d1 == 0  -1.4779     0.4494   -3.29    0.028 *
c0 - d2 == 0  -0.4534     0.3703   -1.22    0.982
c0 - d3 == 0  -0.2251     0.3619   -0.62    1.000
c0 - d4 == 0  -0.1526     0.3599   -0.42    1.000
c0 - d5 == 0   0.5946     0.3537    1.68    0.807
c2 - a0 == 0   1.3109     0.4478    2.93    0.084 .
c2 - a1 == 0   1.3109     0.4478    2.93    0.083 .
c2 - a2 == 0   0.8313     0.4649    1.79    0.733
c2 - a3 == 0   1.1608     0.4520    2.57    0.204
c2 - a4 == 0   1.3834     0.4461    3.10    0.050 .
c2 - b0 == 0   1.6994     0.4401    3.86    <0.01 **
c2 - b1 == 0   0.0391     0.5207    0.08    1.000
c2 - b2 == 0   0.4360     0.4884    0.89    1.000
c2 - b3 == 0   1.4545     0.4447    3.27    0.030 *
c2 - b4 == 0   1.5934     0.4425    3.60    <0.01 **
c2 - c1 == 0   1.3971     0.4313    3.24    0.033 *
c2 - c3 == 0   1.0624     0.4414    2.41    0.289
c2 - c4 == 0   0.8500     0.4491    1.89    0.657
c2 - c5 == 0   0.8500     0.4491    1.89    0.656
c2 - d1 == 0   0.0581     0.5210    0.11    1.000
c2 - d2 == 0   1.0826     0.4545    2.38    0.304
c2 - d3 == 0   1.3109     0.4478    2.93    0.084 .
c2 - d4 == 0   1.3834     0.4461    3.10    0.050 .
c2 - d5 == 0   2.1306     0.4411    4.83    <0.01 ***
#CONTACT
model.alcohols1.contact=glm(contact~trt, data=alcohols1,family=binomial(logit))
anova(model.alcohols1.contact, test="Chisq")
    Df Deviance Resid. Df Resid. Dev    Pr(>Chi)
NULL                1330       1673
trt  20     73.3     1310       1600 0.000000053 ***

mcp.contact=glht(model.alcohols1.contact,linfct=mcp(trt=contrast))
summary(mcp.contact)
           Estimate Std. Error z value Pr(>|z|)
c0 - a0 == 0  -0.3395     0.3604   -0.94    0.999
c0 - a1 == 0  -0.2670     0.3584   -0.74    1.000
```

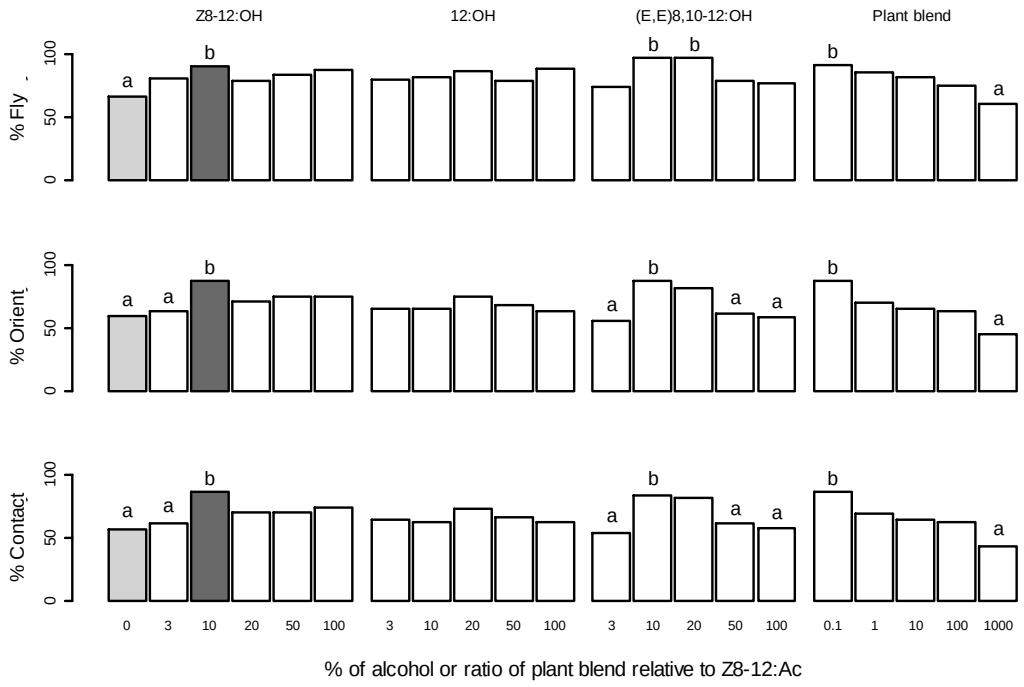
```
c0 - a2 == 0  -0.7320    0.3767   -1.94    0.616
c0 - a3 == 0  -0.4136    0.3628   -1.14    0.991
c0 - a4 == 0  -0.2670    0.3584   -0.74    1.000
c0 - b0 == 0   0.1153    0.3502    0.33    1.000
c0 - b1 == 0  -1.3497    0.4198   -3.21    0.035 *
c0 - b2 == 0  -1.2143    0.4098   -2.96    0.075 .
c0 - b3 == 0  -0.1958    0.3566   -0.55    1.000
c0 - b4 == 0  -0.0569    0.3539   -0.16    1.000
c0 - c1 == 0  -0.1949    0.3385   -0.58    1.000
c0 - c2 == 0  -1.6503    0.4288   -3.85    <0.01 **
c0 - c3 == 0  -0.5879    0.3525   -1.67    0.814
c0 - c4 == 0  -0.5879    0.3525   -1.67    0.814
c0 - c5 == 0  -0.8003    0.3620   -2.21    0.415
c0 - d1 == 0  -1.5922    0.4482   -3.55    0.011 *
c0 - d2 == 0  -0.5677    0.3688   -1.54    0.886
c0 - d3 == 0  -0.3395    0.3604   -0.94    0.999
c0 - d4 == 0  -0.2670    0.3584   -0.74    1.000
c0 - d5 == 0   0.5478    0.3529    1.55    0.879
c2 - a0 == 0   1.3109    0.4478    2.93    0.083 .
c2 - a1 == 0   1.3834    0.4461    3.10    0.051 .
c2 - a2 == 0   0.9183    0.4609    1.99    0.578
c2 - a3 == 0   1.2368    0.4497    2.75    0.133
c2 - a4 == 0   1.3834    0.4461    3.10    0.051 .
c2 - b0 == 0   1.7656    0.4396    4.02    <0.01 **
c2 - b1 == 0   0.3007    0.4968    0.61    1.000
c2 - b2 == 0   0.4360    0.4884    0.89    1.000
c2 - b3 == 0   1.4545    0.4447    3.27    0.029 *
c2 - b4 == 0   1.5934    0.4425    3.60    <0.01 **
c2 - c1 == 0   1.4555    0.4303    3.38    0.020 *
c2 - c3 == 0   1.0624    0.4414    2.41    0.288
c2 - c4 == 0   1.0624    0.4414    2.41    0.288
c2 - c5 == 0   0.8500    0.4491    1.89    0.655
c2 - d1 == 0   0.0581    0.5210    0.11    1.000
c2 - d2 == 0   1.0826    0.4545    2.38    0.303
c2 - d3 == 0   1.3109    0.4478    2.93    0.083 .
c2 - d4 == 0   1.3834    0.4461    3.10    0.050 .
c2 - d5 == 0   2.1982    0.4417    4.98    <0.01 ***
```

#OBSERVED AND PREDICTED

```
observed=as.data.frame(observed)
obs.fly=observed[,1]
obs.of=observed[,2]
obs.contact=observed[,3]

predict.fly=predictmeans(model.alcohols1.fly,"trt",adj="tukey", plot=F)[[6]]
predict.fly=predict.fly[[2]]*100

predict.of=predictmeans(model.alcohols1.of,"trt",adj="tukey", plot=F)[[6]]
predict.of=predict.of[[2]]*100

predict.con=predictmeans(model.alcohols1.contact,"trt",adj="tukey", plot=F)[[6]]
predict.con=predict.con[[2]]*100
```

```
table=cbind(obs.fly,predict.fly,obs.of,predict.of,obs.contact,predict.con)
table=as.data.frame(table)
colnames(table)=c("FLY.O", "FLY.P", "OF.O","OF.P", "CON.O","CON.P")

rownames(table)=levels(alcohols1$trt)
table

   FLY.O FLY.P OF.O OF.P CON.O CON.P
c0    67    67    60    60    57    57
c1    81    81    63    63    62    62
c2    90    90    87    87    87    87
c3    79    79    70    70    70    70
c4    83    83    75    75    70    70
c5    87    87    75    75    75    75
a0    80    80    65    65    65    65
a1    82    82    65    65    63    63
a2    87    87    75    75    73    73
a3    78    78    68    68    67    67
a4    88    88    63    63    63    63
b0    74    74    56    56    54    54
b1    97    97    87    87    84    84
b2    97    97    82    82    82    82
b3    78    78    62    62    62    62
b4    77    77    58    58    58    58
d1    92    92    87    87    87    87
d2    85    85    70    70    70    70
d3    82    82    65    65    65    65
d4    75    75    63    63    63    63
d5    60    60    45    45    43    43

#PLOTTING

par(mfrow=c(3,1), mar=c(4,3,1.5,0), xpd=T, oma=rep(5,4))

#FLY PLOT
par(lwd=2)
fly.plot=barplot(table[[2]],beside=T, axes=F, col=c("lightgrey","white","dimgrey", rep("white",20)),
ylim=c(0,100), axisnames=F, cex.lab=1.5, space=c(0.3, 0.1,0.1,0.1,0.1,0.1,0.5,
0.1,0.1,0.1,0.1,0.5,0.1,0.1,0.1,0.1,0.5,0.1,0.1,0.1,0.1))

axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)

text(fly.plot, table[[2]]+13,
labels=c("a","","b","","","","","","","","","","b","b","","","b","","","","a"),col=c("black"),cex=1.5)
par(lwd=0.5)

axis(3, at=3.5, line=1, labels="Z8-12:OH", cex.axis=1.3, col=0, tck=0)
axis(3, at=10, line=1, labels="12:OH", cex.axis=1.3, col=0, tck=0)
axis(3, at=15.9, line=1, labels="(E,E)8,10-12:OH", cex.axis=1.3, col=0, tck=0)
axis(3, at=21.7, line=1, labels="Plant blend", cex.axis=1.3, col=0, tck=0)

mtext(side=2, "% Fly", line=3,cex=1)
```

```
#OF PLOT
par(lwd=2)
of.plot=barplot(table[[4]],beside=T, axes=F, col=c("lightgrey","white","dimgrey", rep("white",20)),
ylim=c(0,100), axisnames=F ,cex.lab=1.5, space=c(0.3, 0.1,0.1,0.1,0.1,0.1,0.5,
0.1,0.1,0.1,0.1,0.5,0.1,0.1,0.1,0.1,0.5,0.1,0.1,0.1,0.1))
axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)

text(of.plot, table[[4]]+13,
labels=c("a","a","b","","","","","","","","","a","b","","a","a","b","","","","a"),col=c("black"),cex=1.5)

mtext(side=2, "% Orient", line=3,cex=1)

#CONTACT PLOT
contact.plot=barplot(table[[6]],beside=T, axes=F, col=c("lightgrey","white","dimgrey", rep("white",20)),
ylim=c(0,100), axisnames=F, cex.lab=1.5, space=c(0.3, 0.1,0.1,0.1,0.1,0.1,0.5,
0.1,0.1,0.1,0.1,0.5,0.1,0.1,0.1,0.1,0.5,0.1,0.1,0.1,0.1))

axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
text(of.plot, table[[4]]+13,
labels=c("a","a","b","","","","","","","","","a","b","","a","a","b","","","","a"),col=c("black"),cex=1.5)
mtext(side=2, "% Contact", line=3,cex=1)

#x-axis labels
axis(1, at=contact.plot,
line=0,labels=c("0","3","10","20","50","100","3","10","20","50","100","3","10","20","50","100","0.1","1","10
","100","1000"), cex.axis=1, col=0, tck=0)
mtext(side=1, "% of alcohol or ratio of plant blend relative to Z8-12:Ac", line=4,cex=1.1)#
```



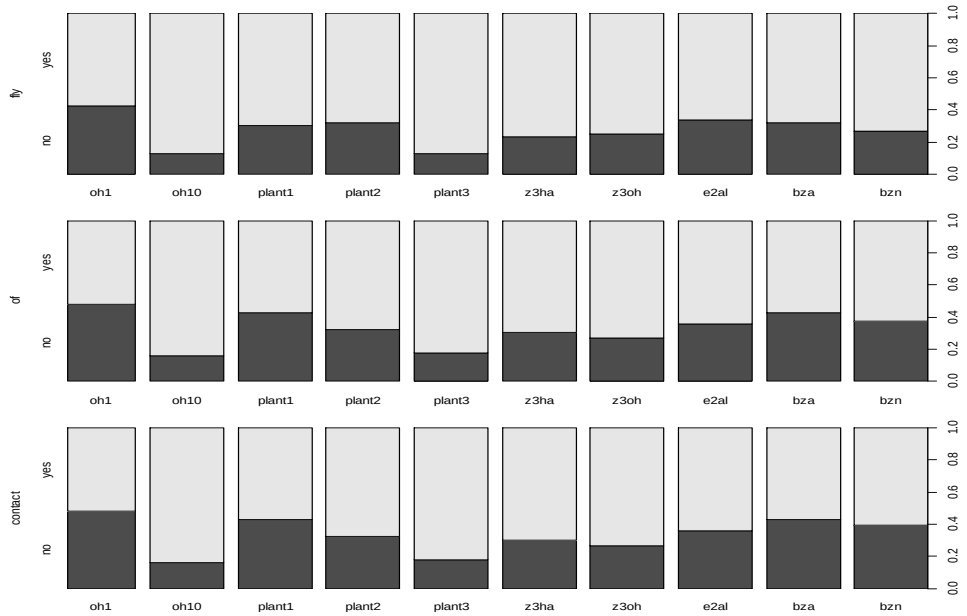
4.2 Effect of individual plant compounds

```
library(reshape) #for "rename"
library(lme4)  #for "glmer"
library(multcomp) #for "glht"
library(psych) #for "describeBy"
library(nlme) #for lme model
library(predictmeans) # for predict means
library(lsmeans) #for lsmeans


setwd("C:/R.tests/")
alcohols2 <-read.table("alcohols2.txt",header=T) #### this file is in C drive, in R tests folder
attach(alcohols2)
summary(alcohols2)
levels(alcohols2$trt)

alcohols2=alcohols2[alcohols2$trt !="hex",]#Remove the hexane treatment (no response to it)
alcohols2=alcohols2[alcohols2$trt !="plant",]#Remove the plant treatment (no response to it)
options(digits=2)
levels(alcohols2$trt) #check treatment levels
[1] "bza"    "bzn"    "e2al"   "hex"    "oh1"    "oh10"   "plant"  "plant1"
 [9] "plant2" "plant3" "z3ha"   "z3oh"
alcohols2$trt=ordered(alcohols2$trt,levels=c("oh1","oh10","plant1","plant2","plant3","z3ha","z3oh","e2al",
"bza","bzn"))# To sepcify the order of treatments to appear in the graph
```

#Treatments:

treatment	
oh1	Pheromone without Z8-12:OH (suboptimal)
oh10	phermone with 10% Z8-12:OH (optimal)
plant1	suboptimal pher + 0.001% plant blend
plant2	suboptimal pher + 0.01% plant blend
plant3	suboptimal pher + 0.1% plant blend
z3ha	suboptimal pher + 0.07% Z3-hexenyl acetate
z3oh	suboptimal pher + 0.14% Z3-hexenol
e2al	suboptimal pher + 0.002% E2-hexenal
bza	suboptimal pher + 0.013% benzaldehyde
bzn	suboptimal pher + 0.001% benzonitrile

```
# Boxplot of percentages
par(mfrow=c(3,1),cex=0.65)
par(mar=c(2,4.5,2,2.5))
plot(fly~trt,data=alcohols2)
plot(of~trt,data=alcohols2)
plot(contact~trt,data=alcohols2)
```




```
#Percenages of response
#FLY
tab1=table(alcohols2$trt,alcohols2$fly)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="fly"))
posit=subset(tab3, fly=="yes")
negat=subset(tab3,fly=="no")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsfly=posit
obsfly
#OF
tab1=table(alcohols2$trt,alcohols2$of)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="of"))
posit=subset(tab3, of=="yes")
negat=subset(tab3,of=="no")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obsof=posit
obsof
#CONTACT
tab1=table(alcohols2$trt,alcohols2$contact)
tab2=as.data.frame(tab1)
tab3=rename(tab2,c(Var1="trt",Var2="contact"))
posit=subset(tab3, contact=="yes")
negat=subset(tab3,contact=="no")
posit$percY=posit$Freq/(posit$Freq+negat$Freq)
obscon=posit
obscon

#Table observed
observed=cbind(obsfly[,4]*100,obsof[,4]*100,obscon[,4]*100)
colnames(observed)=c("o.fly","o.of","o.con")
observed=as.data.frame(observed)
observed$trt=levels(obsfly$trt)
```

```
options(digits=3)
observed

 trt      o.fly     o.of   o.con
 oh1      57.7      51.9   51.9
 oh10     87.5      83.9   83.9
 plant1   69.6      57.1   57.1
 plant2   67.9      67.9   67.9
 plant3   87.5      82.1   82.1
 z3ha     76.8      69.6   69.6
 z3oh     75        73.2   73.2
 e2al     66.1      64.3   64.3
 bza      67.9      57.1   57.1
 bzn      0  73.2   62.5   60.7
```

#Statistical analysis

#There were no responses to the negative controls "plant alone" and "hexane", so these treatments are removed from the analysis. A GLM model was performed on all the data with treatment as the only factor. A different GLM model was performed for each behavioral category. Then, planned pairwise comparisons were performed between treatments of interest. Every treatment was compared with the two control treatments: a) the "optimal" pheromone blend (10% Z8-12:OH) and the "suboptimal" pheromone blend (0% Z8-12:OH), with the following rationale: those treatments that are significantly different from 10% Z8-12:OH is because they are less attractive than the optimal (i.e., "best") blend (no treatment was better than the optimal blend), and b) those treatments that are different from 0% Z8-12:OH is because they are more attractive to males than the suboptimal (i.e., "worst") blend.

#For pairwise comparisons the following vector will be used:

```
contrast=c ("oh1-oh10=0","oh1-plant1=0","oh1-plant2=0","oh1-plant3=0","oh1-z3ha=0","oh1-
z3oh=0","oh1-e2al=0","oh1-bza=0","oh1-bzn=0","oh10-plant1=0","oh10-plant2=0","oh10-plant3=0","oh10-
z3ha=0","oh10-z3oh=0","oh10-e2al=0","oh10-bza=0","plant3-bzn=0","plant3-plant2=0","plant3-
z3ha=0","plant3-z3oh=0","plant3-e2al=0","plant3-bza=0","plant3-bzn=0")
```

#FLY

```
model.alcohols2.fly=glm(fly~trt, data=alcohols2,family=binomial(logit))
anova(model.alcohols2.fly, test="Chisq")

    Df Deviance Resid. Df Resid. Dev Pr(>Chi)
NULL              555       648
trt   9    23.2      546       625   0.0058 **
mcp.fly=glht(model.alcohols2.fly,linfct=mcp(trt=contrast))
summary(mcp.fly)
                Estimate Std. Error z value Pr(>|z|)
oh1 - oh10 == 0     -1.64e+00   4.92e-01   -3.32    0.016 *
oh1 - plant1 == 0   -5.20e-01   4.04e-01   -1.29    0.890
oh1 - plant2 == 0   -4.37e-01   4.01e-01   -1.09    0.956
oh1 - plant3 == 0   -1.64e+00   4.92e-01   -3.32    0.015 *
oh1 - z3ha == 0     -8.86e-01   4.23e-01   -2.09    0.367
oh1 - z3oh == 0     -7.88e-01   4.17e-01   -1.89    0.506
```

```
oh1 - e2al == 0      -3.56e-01   3.98e-01   -0.90    0.987
oh1 - bza == 0       -4.37e-01   4.01e-01   -1.09    0.956
oh1 - bzn == 0       -6.95e-01   4.12e-01   -1.69    0.652
oh10 - plant1 == 0    1.12e+00   4.98e-01    2.24    0.280
oh10 - plant2 == 0    1.20e+00   4.95e-01    2.42    0.193
oh10 - plant3 == 0    1.61e-16   5.71e-01    0.00    1.000
oh10 - z3ha == 0      7.50e-01   5.13e-01    1.46    0.801
oh10 - z3oh == 0      8.47e-01   5.08e-01    1.67    0.667
oh10 - e2al == 0      1.28e+00   4.93e-01    2.60    0.128
oh10 - bza == 0       1.20e+00   4.95e-01    2.42    0.193
plant3 - bzn == 0     9.40e-01   5.04e-01    1.86    0.524
plant3 - plant2 == 0  1.20e+00   4.95e-01    2.42    0.193
plant3 - z3ha == 0    7.50e-01   5.13e-01    1.46    0.801
plant3 - z3oh == 0    8.47e-01   5.08e-01    1.67    0.666
plant3 - e2al == 0    1.28e+00   4.93e-01    2.60    0.129
plant3 - bza == 0     1.20e+00   4.95e-01    2.42    0.193
plant3 - bzn == 0     9.40e-01   5.04e-01    1.86    0.524
```

#OF

```
model.alcohols2.of=glm(of~trt, data=alcohols2,family=binomial(logit))
anova(model.alcohols2.of, test="Chisq")

   Df Deviance Resid. Df Resid. Dev Pr(>Chi)
NULL                555       705
trt   9     26.4      546       678   0.0018 **
mcp.of=glht(model.alcohols2.of,linfct=mcp(trt=contrast))
summary(mcp.of)
                Estimate Std. Error z value Pr(>|z|)
oh1 - oh10 == 0       -1.576      0.458   -3.44    0.010 *
oh1 - plant1 == 0     -0.211      0.387   -0.54    1.000
oh1 - plant2 == 0     -0.670      0.399   -1.68    0.661
oh1 - plant3 == 0     -1.449      0.446   -3.25    0.020 *
oh1 - z3ha == 0       -0.753      0.402   -1.87    0.522
oh1 - z3oh == 0       -0.929      0.410   -2.26    0.271
oh1 - e2al == 0       -0.511      0.393   -1.30    0.888
oh1 - bza == 0        -0.211      0.387   -0.54    1.000
oh1 - bzn == 0        -0.434      0.391   -1.11    0.952
oh10 - plant1 == 0     1.365      0.453    3.01    0.042 *
oh10 - plant2 == 0     0.906      0.463    1.96    0.463
oh10 - plant3 == 0     0.127      0.504    0.25    1.000
oh10 - z3ha == 0       0.823      0.466    1.77    0.600
oh10 - z3oh == 0       0.647      0.473    1.37    0.854
oh10 - e2al == 0       1.065      0.458    2.32    0.241
oh10 - bza == 0        1.365      0.453    3.01    0.042 *
plant3 - bzn == 0      1.015      0.445    2.28    0.262
plant3 - plant2 == 0   0.779      0.451    1.73    0.629
plant3 - z3ha == 0     0.696      0.454    1.53    0.762
plant3 - z3oh == 0     0.521      0.461    1.13    0.947
plant3 - e2al == 0     0.938      0.447    2.10    0.368
plant3 - bza == 0      1.238      0.441    2.81    0.076 .
plant3 - bzn == 0      1.015      0.445    2.28    0.263
```

#CONTACT

```
model.alcohols2.contact=glm(contact~trt, data=alcohols2,family=binomial(logit))
anova(model.alcohols2.contact, test="Chisq")

     Df Deviance Resid. Df Resid. Dev Pr(>Chi)
NULL                 555       706
trt   9     26.8      546       679   0.0015 **
mcp.contact=glht(model.alcohols2.contact,linfct=mcp(trt=contrast))
summary(mcp.contact)
                  Estimate Std. Error z value Pr(>|z|)
oh1 - oh10 == 0       -1.576      0.458   -3.44    0.010 *
oh1 - plant1 == 0     -0.211      0.387   -0.54    1.000
oh1 - plant2 == 0     -0.670      0.399   -1.68    0.660
oh1 - plant3 == 0     -1.449      0.446   -3.25    0.020 *
oh1 - z3ha == 0       -0.753      0.402   -1.87    0.522
oh1 - z3oh == 0       -0.929      0.410   -2.26    0.271
oh1 - e2al == 0       -0.511      0.393   -1.30    0.888
oh1 - bza == 0        -0.211      0.387   -0.54    1.000
oh1 - bzn == 0        -0.358      0.390   -0.92    0.985
oh10 - plant1 == 0     1.365      0.453    3.01    0.042 *
oh10 - plant2 == 0     0.906      0.463    1.96    0.464
oh10 - plant3 == 0     0.127      0.504    0.25    1.000
oh10 - z3ha == 0       0.823      0.466    1.77    0.600
oh10 - z3oh == 0       0.647      0.473    1.37    0.854
oh10 - e2al == 0       1.065      0.458    2.32    0.241
oh10 - bza == 0        1.365      0.453    3.01    0.042 *
plant3 - bzn == 0      1.091      0.443    2.46    0.179
plant3 - plant2 == 0   0.779      0.451    1.73    0.629
plant3 - z3ha == 0     0.696      0.454    1.53    0.761
plant3 - z3oh == 0     0.521      0.461    1.13    0.947
plant3 - e2al == 0     0.938      0.447    2.10    0.367
plant3 - bza == 0      1.238      0.441    2.81    0.075 .
plant3 - bzn == 0      1.091      0.443    2.46    0.180

#OBSERVED AND PREDICTED

observed=as.data.frame(observed)
obs.fly=observed[,1]
obs.of=observed[,2]
obs.contact=observed[,3]

predict.fly=predictmeans(model.alcohols2.fly,"trt",adj="tukey", plot=F)[[6]]
predict.fly=predict.fly[[2]]*100

predict.of=predictmeans(model.alcohols2.of,"trt",adj="tukey", plot=F)[[6]]
predict.of=predict.of[[2]]*100

predict.con=predictmeans(model.alcohols2.contact,"trt",adj="tukey", plot=F)[[6]]
predict.con=predict.con[[2]]*100

table=cbind(obs.fly,predict.fly,obs.of,predict.of,obs.contact,predict.con)
table=as.data.frame(table)
colnames(table)=c("FLY.O", "FLY.P", "OF.O","OF.P", "CON.O","CON.P")
```

```
rownames(table)=levels(alcohols2$trt)
table
```

	FLY.O	FLY.P	OF.O	OF.P	CON.O	CON.P
oh1	57.7	57.7	51.9	51.9	51.9	51.9
oh10	87.5	87.5	83.9	83.9	83.9	83.9
plant1	69.6	69.6	57.1	57.1	57.1	57.1
plant2	67.9	67.9	67.9	67.9	67.9	67.9
plant3	87.5	87.5	82.1	82.1	82.1	82.1
z3ha	76.8	76.8	69.6	69.6	69.6	69.6
z3oh	75	75	73.2	73.2	73.2	73.2
e2al	66.1	66.1	64.3	64.3	64.3	64.3
bza	67.9	67.9	57.1	57.1	57.1	57.1
bzn	73.2	73.2	62.5	62.5	60.7	60.7

```
#PLOTTING
par(mfrow=c(3,1), mar=c(4,3,1.5,0), xpd=T, oma=rep(5,4))

#FLY PLOT
par(lwd=2)
fly.plot=barplot(table[[2]],beside=T, axes=F, col=c("lightgrey","dimgrey",rep("white",8)), ylim=c(0,100),
axisnames=F ,cex.lab=1.5, space=c(0.3, 0.1,0.5,0.1,0.1,0.5,0.1,0.1,0.1,0.1))
axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
text(fly.plot, table[[2]]+13, labels=c("","b","","","b","","","","","",""),col=c("black"),cex=1.5)
text(fly.plot, table[[2]]+12, labels=c("a","","","","","","","","","","",""),col=c("black"),cex=1.5)
mtext(side=2, "% Fly", line=3,cex=1)#

text(fly.plot, table[[2]]+13, labels=c("","","","","","","Z3HA","Z3OH","E2AL","BZA","BZN"),col=c("black"),cex=1)

par(lwd=0.5)
axis(3, at=1.2, line=0, labels="Z8-12:OH (%)", cex.axis=1.3, col=0, tck=0)
axis(3, at=4.4, line=0, labels="Plant blend", cex.axis=1.3, col=0, tck=0)
axis(3, at=9, line=0, labels="Plant odorants", cex.axis=1.3, col=0, tck=0)


#OF PLOT
par(lwd=2)
of.plot=barplot(table[[4]],beside=T, axes=F, col=c("lightgrey","dimgrey",rep("white",8)),
ylim=c(0,100),axisnames=F, cex.lab=1.5, space=c(0.3, 0.1,0.5,0.1,0.1,0.5,0.1,0.1,0.1,0.1))

axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
text(of.plot, table[[4]]+13, labels=c("","b","","","b","","","","","",""),col=c("black"),cex=1.5)
text(of.plot, table[[4]]+12, labels=c("a","","a","","","","","","a","",""),col=c("black"),cex=1.5)
mtext(side=2, "% Orient", line=3,cex=1)#


#CONTACT PLOT
par(lwd=2)
contact.plot=barplot(table[[6]],beside=T, col=c("lightgrey","dimgrey",rep("white",8)), axes=F,
ylim=c(0,100),axisnames=F, cex.lab=1.5, space=c(0.3, 0.1,0.5,0.1,0.1,0.5,0.1,0.1,0.1,0.1))
```

```
axis(2,at=seq(0,100,by=50), cex.axis=1.3, lwd=2)
text(contact.plot, table[[6]]+13, labels=c("","b","","","b","","","","","",""),col=c("black"),cex=1.5)
text(contact.plot, table[[6]]+12, labels=c("a","","a","","","","","","a",""),col=c("black"),cex=1.5)
mtext(side=2, "% Contact", line=3,cex=1)

#X axis
axis(1, at=contact.plot,
line=0,labels=c("0","10","0.001","0.01","0.1","0.07","0.014","0.002","0.013","0.001"), cex.axis=1.3, col=0,
tck=0)
mtext(side=1, " % Z8-12:OH // Ratio of plant blend/plant odorants relative to Z8-12:Ac ", line=3.5,cex=1)
```